https://jhr.pensoft.net



An annotated checklist of the bees of Washington state

Chanda S. Bartholomew¹, Elizabeth A. Murray^{2,3}, Silas Bossert^{2,3}, Joel Gardner², Chris Looney¹

I Washington State Department of Agriculture, Tumwater, WA, USA 2 Department of Entomology, Washington State University, Pullman, Washington, USA 3 National Museum of Natural History, Smithsonian Institution, Washington, DC, USA

Corresponding author: Chris Looney (clooney@agr.wa.gov)

Academic editor: Jack Neff | Received 4 June 2024 | Accepted 4 September 2024 | Published 1 November 2024

https://zoobank.org/95B34948-7979-418A-B325-215CCB75821F

Citation: Bartholomew CS, Murray EA, Bossert S, Gardner J, Looney C (2024) An annotated checklist of the bees of Washington state. Journal of Hymenoptera Research 97: 1007–1121. https://doi.org/10.3897/jhr.97.129013

Abstract

Bees (Hymenoptera: Apoidea) are vital components of global ecosystems, yet knowledge of their distribution is limited in many regions. Washington state is located in an ecologically diverse part of North America and encompasses habitat types and plant communities known for high bee species richness. To establish a baseline for future studies on bee communities in the state, we used published and unpublished datasets to develop a preliminary annotated checklist of bees occurring in Washington state. We document, with high confidence, 565 species of bees in Washington and identify an additional 102 species likely to occur in the state. We anticipate future research survey efforts, such as the newly initiated Washington Bee Atlas, will discover several species that have the potential to occur in Washington and provide new data for 84 species which have not been recorded in more than 50 years.

Keywords

Anthophila, Apoidea, faunal list, new state records, Pacific Northwest, pollinators

Table of contents

Introduction	1010
Materials and methods	1011
Results and discussion	1015
Checklist	1023
Andrenidae: Andreninae: Andrenini	1024
Genus Andrena Fabricius	1024
Panurginae: Calliopsini	1036
Genus <i>Calliopsis</i> Smith	1036
Panurgini	1037
Genus <i>Panurginus</i> Nylander	1037
Perditini	
Genus <i>Perdita</i> Smith	1037
Apidae: Anthophorinae: Anthophorini	1038
Genus Anthophora Latreille	1038
Genus <i>Habropoda</i> Smith	
Apinae: Apini	1040
Genus <i>Apis</i> Linnaeus	1040
Bombini	
Genus Bombus Latreille	
Eucerinae: Emphorini	
Genus <i>Diadasia</i> Patton	
Eucerini	1051
Genus <i>Epimelissodes</i> Ashmead	1051
Genus <i>Eucera</i> Scopoli	
Genus <i>Melissodes</i> Latreille	
Nomadinae: Ammobatini	
Genus Oreopasites Cockerell	1054
Epeolini	
Genus <i>Epeolus</i> Latreille	
Genus Triepeolus Robertson	
Melectini	
Genus Brachymelecta Linsley	
Genus Melecta Latreille	
Genus Zacosmia Ashmead	
Nomadini	
Genus Nomada Scopoli	
Xylocopinae: Ceratinini	
Genus Ceratina Latreille	
Xylocopini	
Genus <i>Xylocopa</i> Latreille	
Colletidae: Colletinae: Colletini	1060

Genus Colletes Latreille	1060
Hylaeinae: Hylaeini	1062
Genus <i>Hylaeus</i> Fabricius	1062
Halictidae: Halictinae: Halictini	1063
Genus Agapostemon Guerin-Meneville	
Genus <i>Halictus</i> Latreille	
Genus Lasioglossum Curtis	1066
Genus Sphecodes Latreille	
Nomiinae: Nomiini	1074
Genus <i>Nomia</i> Latreille	1074
Rophitinae	1074
Genus <i>Dufourea</i> Lepeletier	
Megachilidae: Megachilinae: Anthidiini	1075
Genus Anthidiellum Cockerell	
Genus Anthidium Fabricius	1075
Genus <i>Dianthidium</i> Cockerell	1076
Genus Stelis Panzer	1077
Dioxyini	1078
Genus <i>Dioxys</i> Lepeletier and Serville	1078
Megachilini	1078
Genus <i>Coelioxys</i> Latreille	
Genus <i>Megachile</i> Latreille	1079
Osmiini	
Genus Ashmeadiella Cockerell	1084
Genus <i>Atoposmia</i> Cockerell	
Genus <i>Chelostoma</i> Latreille	1085
Genus <i>Heriades</i> Spinola	1085
Genus <i>Hoplitis</i> Klug	1085
Genus Osmia Panzer	
Genus <i>Protosmia</i> Ducke	
Melittidae: Melittinae: Macropidini	1096
Genus Macropis Panzer	
Bee species likely to occur in Washington	
Andrenidae	
Apidae	
Halictidae	
Megachilidae	
Melittidae	
Records excluded from analysis	
Andrenidae	
Apidae	
Halictidae	
Megachilidae	1103

Acknowledgements	1104
References	
Supplementary material 1	1121
Supplementary material 2	1121

Introduction

Despite the global importance of bees and the risk of disrupting vital ecosystem services due to pollinator decline, our basic knowledge of many bee species is still limited (Brown and Paxton 2009; Winfree et al. 2011). Documenting regional bee faunas is essential for monitoring ecosystem health by providing a baseline for understanding changes in species composition at local and regional scales (Winfree et al. 2011; Mathiasson and Rehan 2019; Decker et al. 2020; Kilpatrick et al. 2020). Efforts to fill this gap have resulted in a push to document the bee fauna across the United States, with recent checklists and other biogeographic summaries published for Colorado (Scott et al. 2011), Indiana (Jean 2010), Illinois (Decker et al. 2020), Louisiana (Owens et al. 2018), Maine (Dibble et al. 2017), Massachusetts (Veit et al. 2021), Michigan (Gibbs et al. 2017), Minnesota (Portman et al. 2023), Oregon (Best et al. 2021, 2022), Pennsylvania (Kilpatrick et al. 2020), and Wisconsin (Wolf and Ascher 2009).

Washington state is located in the North American Pacific Northwest, an ecologically diverse region that encompasses wet, coastal forests, geologically active mountains, arid, interior forests, and extensive shrub-steppe plant communities (Franklin and Dyrness 1973). Increased population growth throughout the Puget Sound in the western part of state (Robinson et al. 2005; Zank et al. 2016) and widespread agriculture usage in the eastern part of the state has converted many native ecological communities to heavily modified anthropogenic landscapes (Daubenmire 1970). In fact, Daubenmire's (1970) efforts to characterize the pre-European vegetation of Washington's shrub-steppe communities found that most of eastern Washington had already been either heavily grazed by livestock or was already in cultivation after less than 100 years of colonization. The prominence of agriculture in eastern Washington is particularly of concern given that temperate grassland ecosystems are among the most threatened in the world (Lane et al. 2022) and xeric regions such as those east of the Cascade Mountain Range are associated with high bee diversity (Michener 1979; Cane 2011; Orr et al. 2021). For example, the Palouse Prairie in southeastern Washington state and adjacent Idaho is a critically endangered ecosystem, with native plant communities possibly occupying as little 1% of their historic range (Black et al. 1998; Looney and Eigenbrode 2012). Even so, Palouse prairie remnants have been shown to support many rare or endangered species such as ferruginous hawk, white-tailed jackrabbit, and sharp-tailed grouse despite high fragmentation and overall habitat loss (Black et al. 1998; Hanson et al. 2008; Looney and Eigenbrode 2012). Meanwhile, the central xeric regions are historically under-sampled and poorly known compared to the Puget Sound and the Palouse Prairie, despite expecting high bee diversity in such habitats.

It is therefore critical to establish a baseline of the species present to assess current regional species richness to inform future state-level conservation planning.

The objective of this checklist is to document the species currently encountered in Washington state, but it is interesting to note that the presence of bees in Washington has also been documented in the fossil record. A fossil of Bombus proavus was discovered during 1927–1928 in the Latah Formation (11.63 Ma to 5.333 Ma) near Spokane in Spokane County (Cockerell 1931), and plant fossils showing possible leaf cutter bee damage were discovered near Republic in Ferry County in the Klondike Mountain Formation (15.97 Ma to 11.63 Ma) (Lewis 1994). Several studies have been made of the bee fauna in parts of Washington, which collectively contribute to a baseline of species presence in the state, but there has yet been no synthesis of these records, or a checklist developed for the state. Contemporary lists perhaps begin with Viereck et al. (1904a; 1904b; 1904c; 1905; 1906) who summarized the known bee species of the Pacific Northwest in a series of five publications, including Washington, Oregon, and British Columbia. This established the first baseline of bee diversity in the region and reported 157 species at the time (although after accounting for synonymies this number drops to 116 species). The next comprehensive bee survey in Washington was not until Tepedino and Griswold (1995) published a technical report on the bees of the Columbia Basin, including parts of Washington, Oregon, and Idaho. They reported 647 species in the Columbia Basin, but emphasize that the area was under-sampled and estimate the actual number of species to be closer to 1000. Mayer et al. (2000) reported 72 species in a small area near the Snake River in southeastern Washington, although this did not include any *Lasioglossum* identified to species. Wilson et al. (2010) surveyed bees in the Tonasket Ranger District of Okanogan-Wenatchee National Forest (in north-central Washington), reporting 140 species. Hatten et al. (2013) published a list of the *Bombus* of the Palouse Prairie (including parts of Washington and Idaho) based on bycatch from pitfall traps and identifying ten species. Subsequent work by Rhoades et al. (2017) in the same areas resulted in a more comprehensive sample of the Palouse bee taxa, reporting 174 identified species and 36 undetermined morphospecies, 57 of which were new to the Palouse.

To obtain a baseline bee fauna of Washington state, data from these disparate studies and other literature records must first be compiled. Examination of museum specimens and collection of fresh material is also needed, especially in areas that are not previously well-studied. The objective of this checklist is to provide such a baseline for the state of Washington for use by the public, policymakers, and researchers to guide future research and conservation plans.

Materials and methods

The checklist was compiled using online biodiversity database portals [Global Biodiversity Information Facility (GBIF; gbif.org) and Discover Life Global Mapper (discoverlife.org; Ascher and Pickering 2022)], specimens in private and institutional

collections, and literature review. GBIF records were searched by selecting a coordinate polygon to include only Washington records (GBIF 2022a). Because not all Washington records have explicit geocoordinates associated with them, a second search was conducted using Washington as the state location (GBIF 2022b). Online records accessed by GBIF and Discover Life Global Mapper were obtained from various museum collections and the Barcode of Life Data System (BOLD; boldsystems.org; Ratnasingham and Hebert 2007) as well as citizen or community science records from citizen or community science portals iNaturalist, Bumble Bee Watch, and BugGuide. Table 1 presents a list of all private or institutional collections used to compile this checklist, accessed through GBIF, the Discover Life Global Mapper, or personal communications.

Data quality of records accessed through online biodiversity database portals such as GBIF and Discover Life Global Mapper can be inconsistent (Goodwin et al. 2015; Gibbs et al. 2017). Similarly, it is important to evaluate the accuracy of data collected from community science programs such as Bumble Bee Watch and BugGuide to determine their appropriate use (MacPhail et al. 2020). To ensure that this checklist is reasonably accurate, records were filtered to only include records from collections currently or previously managed by known bee experts, and community science submissions that were confirmed by known bee experts. Nonetheless, this contribution must be regarded as a preliminary checklist, as we were not able to verify every single record, and several entries warrant reassessment.

Literature sources were reviewed for any bees recorded from Washington. Not all such records include collection dates or locality data. Where possible, some of this information was inferred from the methods section. Records without county were georeferenced using the USGS Domestic Names Database (https://edits.nationalmap.gov/apps/gaz-domestic/public/search/names). If the location could not be found by searching in the USGS domestic names database, we used other historical documents (e.g. antique maps) to identify the location in the state and then manually locate it on a map.

Species names are updated to match current taxonomy. Taxonomy generally follows the Integrated Taxonomic Information System (itis.gov) and Michener (2007), with the following exceptions: the higher-level classification of Apidae follows Bossert et al. (2019; 2020); the generic classification of Eucerini follows Freitas et al. (2023); the taxonomy for *Bombus* follows Williams (1998; and the regularly updated website *Bombus*: bumblebees of the world), Williams et al. (2014), Williams et al. (2015), Martinet et al. (2019), Ghisbain et al. (2020), and Lhomme et al. (2021); *Epeolus* follows Onuferko (2017); *Nomada* follows Droege et al. (2010), and *Brachymelecta* follows Onuferko et al. (2021). The *Andrena* subgenera classification follows Pisanty et al. (2022).

We based much of the structure and format of this list on the updated checklist of Pennsylvanian bees (Kilpatrick et al. 2020). The Washington checklist is organized alphabetically by family with each subsequent level (i.e., subfamily, tribe, genus, subgenus, and species) also organized alphabetically. Records for each species include, if available, the county where it was recorded, each month it was recorded as well as the most recent year it was recorded (in parentheses), the collection where specimens can be found, conservation status, and any floral and host associations noted in the literature and specific to Washington.

Table 1. List of collections and databases holding species records.

MMNH American Museum of Natural History, New York, NY BugGuide (bugguide.net) OSUC C. A. Triplehorn Insect Collection, Ohio State University, Columbus, OH CAS California Academy of Sciences, San Francisco, CA CAIfornia Academy of Sciences, San Francisco, CA CAIfornia Academy of Sciences, San Francisco, CA CMNH Cleveland Museum of Natural History, Cleveland, OH CAS CA California State Collection of Arthropods, California, Department of Food and Agriculture, Sacramento, CA CMNH Cleveland Museum of Natural History, Chicago, IL COTC Canadian National Collection of Insects, Arachnids, and Nematodes, Agriculture Canada, Ortawa, Ontario, Canada CUIC Cornell University Insect Collection, Ithaca, NY Fishell Museum of Natural History, Chicago, IL PSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection NHS Illinois Natural History Survey, University of Illinois, Champaigo, IL Naturalist (Inaturalist Ginaturalists of University Insect Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA Milczky Private Collection Museum of Comparative Zoology, Harvard University, Cambridge, MA Museum of Comparative Zoology, Harvard University, Cambridge, MA Museum of Comparative Zoology, Harvard University, Cambridge, MA Museum of Sates Stational Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Collection of Arthropods, Las Cruces, NM Nvs Mexico State Stat		or consequent and anome accession g of conse
OSUC C. A. Triplehorn Insect Collection, Ohio State University, Columbus, OH CAS California State Collection of Arthropods, California Department of Food and Agriculture, Socramento, CA California State Collection of Arthropods, California Department of Food and Agriculture, Socramento, CA CMNH Cleveland Museum of Natural History, Cleveland, OH CNC Canadian National Collection of Insects, Arachnids, and Nematodes, Agriculture Canada, Ottawa, Ontario, Canada CUC Cornell University Insect Collection, Ithaca, NY FIRMH Field Museum of Natural History, Chicago, IL FSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INHS Illinois Natural History Survey, University of Illinois, Champaign, IL illinois Natural History Survey, University of Illinois, Champaign, IL illinois Natural History Survey, University of Illinois, Champaign, IL illinois Natural History Survey, University of Illinois, Champaign, IL illinois Natural History Survey, University of Illinois, Champaign, IL illinois Natural History Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA MIL Museum of Comparative Zoology, Harvard University, Cambridge, MA Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Unah, Salt Lake City, UT Natural History Museum of Dath, Salt Lake City, UT Natural History Museum of Dath, Salt Lake City, UT Natural History Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM New Mexico State Collection of Arthropods, Las Cruces, NM New Mexico State Collection of Arthropods, Las Cruces, NM New Mexico State Collection of Arthropods, Las Cruces, NM New Mexico State Collection of Natural Sciences, Philadelphia, PA Pollmating Insect – Biology, Management, Systematics Research Unit, Logan, UT Rexas A&M University Insect Collection, College Station, TX Hanson	AMNH	American Museum of Natural History, New York, NY
CAS CSCA California State Collection of Arthropods, California Department of Food and Agriculture, Sacramento, CA CMNH Cleveland Museum of Natural History, Cleveland, OH CNC Canadian National Collection of Insects, Arachnids, and Nematodes, Agriculture Canada, Otrawa, Onario, Canada Courio,	BugGuide	BugGuide (bugguide.net)
CSCA California State Collection of Arthropods, California Department of Food and Agriculture, Sacramento, CA CMNH CNC Caredand Museum of Natural History, Cleveland, OH CNC Canadian National Collection of Insects, Arachnids, and Nematodes, Agriculture Canada, Ottawa, Ontario, Canada CUIC Cornell University Insect Collection, Ithaca, NY FMNH FMNH Field Museum of Natural History, Chicago, II. PSUC Frost Entomological Museum, Penn State University, State College, PA Nate Green's Private Collection INIS Illinois Natural History Survey, University of Illinois, Champaign, II. Illinois Natural History Survey, University of Illinois, Champaign, II. Illinois Natural History Survey, University of Illinois, Champaign, II. Illinois Natural History Survey, University of Illinois, Champaign, II. Illinois Natural History Survey, University, Cambridge, MA Miliczky Miliczky Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA MTTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NYSM New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada Putucent Wildlife Research Center, US Geological Survey, Laurel, MD Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RAMU Texas A&M University Entomological Museum, New Brunswick, NJ Tramacon Collection, Natural History, Builded; PA University of California, Riverside, CA University of California, Robart Museum of Entomology, Davis, CA University of California, Riverside, CA University of California, Riverside, CA University of California, Riverside, CA University of Kansas, Snow Entomological Museum Collection, Lawrence, KS	OSUC	C. A. Triplehorn Insect Collection, Ohio State University, Columbus, OH
Sacramento, CA CMNH Cleveland Museum of Natural History, Cleveland, OH CMNC Canadian National Collection of Insects, Arachids, and Nematodes, Agriculture Canada, Ottawa, Ontario, Canada Culic Cornell University Insect Collection, Ithaca, NY FMNH Field Museum of Natural History, Chicago, IL FSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INIIS Illinois Natural History Survey, University of Illinois, Champaign, IL Naturalist Naturalist Naturalist Inaturalist (inaturalis.org) JRYA Jessica Rykken's Database LACM Lox Angeles County Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA MTTTU Museum of Texas Techt University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNII National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NorSU North Carolina State University Insect Museum, Raleigh, NC PCYC Packer Collection, York University, Toronto, Ontario, Canada PWRC Patturent Wildlife Research Center, US Geological Survey, Laurel, MD PARSE Philadelphia Academy of Natural Sciences, Philadelphia, PA Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada Rugers University Entomological Museum. New Brunswick, NJ Texas A&M University Insect Collection, Sorts, CT SEMC University of California, Bohart Museum of Entomology, Davis, CA University of California, Riverside, CA University of California, Riverside, CA University of California, Riverside, CA University of Sunaectical Insect Collection, Storts, CT SEMC University of Sunaectical Collection of Natural History, Boulder, CO University of Sunaectical Insect Collection, Storts, CT SEMC University of Sunaectical Collection of Natural History, Boulder, CO Universit	CAS	California Academy of Sciences, San Francisco, CA
Sacramento, CA CMNH Cleveland Museum of Natural History, Cleveland, OH CMNC Canadian National Collection of Insects, Arachids, and Nematodes, Agriculture Canada, Ottawa, Omario, Canada Culic Cornell University Insect Collection, Ithaca, NY FMNH Field Museum of Natural History, Chicago, IL FSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INIIS Illinois Natural History Survey, University of Illinois, Champaign, IL Naturalist Naturalist Naturalist (inaturalis.org) JRYA Jessica Rykken's Database LACM Lox Angeles County Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA MTTTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNII National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY North Carolina State University, Toronto, Ontario, Canada PWRC PAttucent Wildlife Research Center, US Geological Survey, Laurel, MD PATTO And Carolina State University, Toronto, Ontario, Canada PWRC PAttucent Wildlife Research Center, US Geological Survey, Laurel, MD PARSH Philadelphia Academy of Natural Sciences, Philadelphia, PA Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada Rugers University of California, Bohart Museum of Entomology, Davis, CA University of California, Riverside, CA University of Sashas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Sashas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Sashas, Snow Entomological Collection, Moscow, ID WSDA Washington State University, M. T. James Entomological Collec	CSCA	California State Collection of Arthropods, California Department of Food and Agriculture,
CNC Canadian National Collection of Insects, Arachnids, and Nematodes, Agriculture Canada, Ottawa, Ontario, Canada CUIC Cornell University Insect Collection, Ithaca, NY FMNH Field Museum of Natural History, Chicago, IL PSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INIIS Illinois Natural History Survey, University of Illinois, Champaign, IL INATURALIS Instrumalist (inaturalist, ong) JRYA Jessica Rykken's Database LACM Los Angeles County Museum, Los Angeles, CA Milicalys' Private Collection Milicalys's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Creas Tech University, Lubbock, TX UMNH Natural History Museum of Urah, Salt Lake City, UT NMNH National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, University Automated State Collection, Smithsonian Institution, Washington, D.C. (formerly USNM, University Automated State Collection, Smithsonian Institution, Washington, D.C. (formerly USNM, University Collection, Smithsonian Institution, Washington, D.C. (formerly USNM, University Collection, Collection, College Station, TX NSDA New York State Gullection of Arthropods, Las Cruces, NM <		
Ontario, Canada COILC COINCI University Insect Collection, Ithaca, NY FMNH Field Museum of Natural History, Chicago, IL PSUC Frost Entomological Museum, Penn State University, State College, PA NMDG NATE Green's Private Collection Illinois Natural History Survey, University of Illinois, Champaign, IL iNaturalist iNaturalist (inaturalist.org) JRNA Jesica Rykken's Database LACM Los Angeles County Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UNNH Natural History Museum of Lorab, Salt Lake City, UT NMNH Natural History Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NASU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada Parusent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect – Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum of Entomology, Davis, CA LUCMC University of California, Bohart Museum of Entomology, Berkeley, CA UCMC University of California, Rohart Museum of Entomology, Berkeley, CA UCMC University of California, Rohart Museum of Entomology, Berkeley, CA UCMC University of Scolorado Museum of Natural History, Boulder, CO UCMS University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNIMC University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM UNMC WCMC Western Washington University, Inacet Collection, Moscow, ID WSDA Washington State University, M. T. James Entomological Collection, Pullman, WA WSUC Washington State University, M. T. James Entomological Collection,	CMNH	Cleveland Museum of Natural History, Cleveland, OH
CUIC Cornell University Insect Collection, Ithaca, NY FMNH Field Museum of Natural History, Chicago, II. PSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INIS Illinois Natural History Survey, University of Illinois, Champaign, II. INATURALIST Illinois Natural History Survey, University of Illinois, Champaign, II. INATURALIST Illinois Natural History Survey, University of Illinois, Champaign, II. INATURALIST Illinois Natural History Museum, Los Angeles, CA Milicaly's Private Collection MA MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Heast Ech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNII Natural History Museum of Ilistory, Smithsonian Institution, Washington, D.C. (formerly USNM, Unived States Astainal Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New Mexico State University Insect Collection, Survey, Laurel, MD <	CNC	Canadian National Collection of Insects, Arachnids, and Nematodes, Agriculture Canada, Ottawa,
FMNH Field Museum of Natural History, Chicago, IL PSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INHS Illinois Natural History Survey, University of Illinois, Champaign, IL INATURALIST INATURALIST (inaturalist.org) JRVA Jessica Rykken's Database LACM Los Angeles County Museum, Los Angeles, CA Miliczky Miliczky Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNH Natural Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, University Autonal Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New Torth Carolina State University Insect Museum, Raleigh, NC PAcker Collection, York University Toronto, Ontario, Canada PWRC Patiladelphia Academy of Natural Sciences, Philadelphia, PA ANSD Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL		Ontario, Canada
PSUC Frost Entomological Museum, Penn State University, State College, PA NMDG Nate Green's Private Collection INHS Illinois Natural History Survey, University of Illinois, Champaign, IL INATURALIST Inhamilian Illinois Natural History Survey, University of Illinois, Champaign, IL INATURALIST Jessica Rykken's Database LAC.M Los Angeles County Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ. Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Comparative Zoology, Harvard University, Cambridge, MA MTN Natural History Museum, Relative City, UT NAMD Natural History Museum, Relative City, Candrada PCSU Packer Collection, York University Insect	CUIC	Cornell University Insect Collection, Ithaca, NY
NMDG Nate Green's Private Collection INHS Illinois Natural History Survey, University of Illinois, Champaign, IL Intraliant Illinois Natural History Survey, University of Illinois, Champaign, IL Intraliant Intraliant JRXA Jessica Rykken's Database LACM Los Angeles County Muscum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Muscum of Comparative Zoology, Harvard University, Cambridge, MA TTU Muscum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNH National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, University Autonomy United States National Museum) NSD New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Releigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Partusent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinarting Insect — Biology, Management, Systematics Research Unit, Lo	FMNH	Field Museum of Natural History, Chicago, IL
INIIIS Illinois Natural History Survey, University of Illinois, Champaign, IL iNaturalist inaturalist (inaturalist corg) JRYA Jessica Rykken's Database LACM Los Angeles County Museum, Los Angeles, CA Miliczky Miliczkys Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNH National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New Mork State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSI Pollinating Insect – Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New	PSUC	Frost Entomological Museum, Penn State University, State College, PA
iNaturalist jRYA Jessica Rykken's Database LACM Los Angeles County Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNH National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA UCMC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Nebraska-Lincoln State Museum Collection, Lawrence, KS UNSM University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNNE University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNNE University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM WSDC Washington State Department of Agriculture, Tumwater, WA WSDC Washington State Department of Agriculture, Tumwater, WA WSUC Western Washington University Insect Collection, Bellingham, WA Verces Society – Bumble Bee Watch	NMDG	Nate Green's Private Collection
JRYA Jessica Rykken's Database LACM Los Angeles County Museum, Los Angeles, CA Miliczky Miliczky's Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Urah, Salt Lake City, UT NMNH Natural History Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albamy, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA Pollinating Insect – Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA UCMC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State Department of Agriculture, Tumwater, WA WSUC Washington State Department of Agriculture, Tumwater, WA WSUC Western Washington University Insect Collection, Bellingham, WA VECES OND Washington State Department of Bentomological Collection, Pullman, WA WSUC Western Washington Bentomological Mateur	INHS	Illinois Natural History Survey, University of Illinois, Champaign, IL
LACM Los Angeles County Museum, Los Angeles, CA Miliczky Miliczky S Private Collection MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA Museum of Comparative Zoology, Harvard University, Cambridge, MA Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of Utah, Salt Lake City, UT NMNH National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA UCRC University of California, Riverside, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Nebraska-Lincoln State Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum Morell Hall, Lincoln, NE UNHC University of New Hampshire Collection, Storrs, CT SEMC University of New Hampshire Collection of Insects and Arthropods, Durham, NH University of New Hampshire Collection in Storest and Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WBM U.S. Fish and Wildlife Service, Vancouver, WA WSUC Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University Insect Collection, Bellingham, WA	iNaturalist	iNaturalist (inaturalist.org)
MiliczkyMiliczky's Private CollectionMCZMuseum of Comparative Zoology, Harvard University, Cambridge, MATTUMuseum of Texas Tech University, Lubbock, TXUMNHNatural History Museum of Utah, Salt Lake City, UTNMNHNational Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum)NMSUNew Mexico State Collection of Arrhropods, Las Cruces, NMNYSMNew York State Museum, Albany, NYNCSUNorth Carolina State University Insect Museum, Raleigh, NCPCYUPacker Collection, York University, Toronto, Ontario, CanadaPWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Riverside, CAUCRCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Kansas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNSMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.	JRYA	Jessica Rykken's Database
MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of University, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Riverside, CA UCRC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Kansas, Snow Entomological Museum Collection, Lawrence, KS	LACM	Los Angeles County Museum, Los Angeles, CA
MCZ Museum of Comparative Zoology, Harvard University, Cambridge, MA TTU Museum of Texas Tech University, Lubbock, TX UMNH Natural History Museum of University, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Riverside, CA UCRC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Kansas, Snow Entomological Museum Collection, Lawrence, KS	Miliczky	Miliczky's Private Collection
TTUMuseum of Texas Tech University, Lubbock, TXUMNHNatural History Museum of Utah, Salt Lake City, UTNMNHNational Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum)NMSUNew Mexico State Collection of Arthropods, Las Cruces, NMNYSMNew York State Museum, Albany, NYNCSUNorth Carolina State University Insect Museum, Raleigh, NCPCYUPacker Collection, York University, Toronto, Ontario, CanadaPWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPOllinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Essig Museum of Entomology, Berkeley, CAUCRCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Kansas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of New Hampshire Collection, Store, CTSEMCUniversity of New Hampshire Collection, Store, CTUNHCUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBM <t< td=""><td>MCZ</td><td></td></t<>	MCZ	
UMNH Natural History Museum of Utah, Salt Lake City, UT NMNH National Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum) NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect – Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Essig Museum of Entomology, Davis, CA UCRC University of California, Essig Museum of Entomology, Berkeley, CA UCMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS	TTU	
NMNHH NIMSUNational Museum of Natural History, Smithsonian Institution, Washington, D.C. (formerly USNM, United States National Museum)NMSUNew Mexico State Collection of Arthropods, Las Cruces, NMNYSMNew York State Museum, Albany, NYNCSUNorth Carolina State University Insect Museum, Raleigh, NCPCYUPacker Collection, York University, Toronto, Ontario, CanadaPWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Riverside, CAUCRCUniversity of California, Riverside, CAUCMCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Kansas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWSDAWashington State University, M. T. James Entomologic	UMNH	•
NMSU New Mexico State Collection of Arthropods, Las Cruces, NM NYSM New York State Museum, Albany, NY NCSU North Carolina State University Insect Museum, Raleigh, NC PCYU Packer Collection, York University, Toronto, Ontario, Canada PWRC Pattuxent Wildlife Research Center, US Geological Survey, Laurel, MD ANSP Philadelphia Academy of Natural Sciences, Philadelphia, PA BBSL Pollinating Insect — Biology, Management, Systematics Research Unit, Logan, UT RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Riverside, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA	NMNH	
NYSMNew York State Museum, Albany, NYNCSUNorth Carolina State University Insect Museum, Raleigh, NCPCYUPacker Collection, York University, Toronto, Ontario, CanadaPWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Essig Museum of Entomology, Berkeley, CAUCMCUniversity of California, Riverside, CAUCMCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State University, M. T. James Entomological Collection, Pullman, WA		
NYSMNew York State Museum, Albany, NYNCSUNorth Carolina State University Insect Museum, Raleigh, NCPCYUPacker Collection, York University, Toronto, Ontario, CanadaPWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Essig Museum of Entomology, Berkeley, CAUCMCUniversity of California, Riverside, CAUCMCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State University, M. T. James Entomological Collection, Pullman, WA	NMSU	New Mexico State Collection of Arthropods, Las Cruces, NM
PCYUPacker Collection, York University, Toronto, Ontario, CanadaPWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Riverside, CAUCRCUniversity of California, Riverside, CAUCMCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Sunsas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State Department of Agriculture, Tumwater, WAWSUCWashington State University, M. T. James Entomological Collection, Pullman, WAWWUCWestern Washington University Insect Collection, Bellingham, WA<	NYSM	
PWRCPatuxent Wildlife Research Center, US Geological Survey, Laurel, MDANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Riverside, CAUCRCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Nebraska, Snow Entomological Museum Collection, Lawrence, KSUNNMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State Department of Agriculture, Tumwater, WAWSUCWashington State University, M. T. James Entomological Collection, Pullman, WAWWUCWestern Washington University Insect Collection, Bellingham, WABOMBUSXerces Society – Bumble Bee Watch	NCSU	North Carolina State University Insect Museum, Raleigh, NC
ANSPPhiladelphia Academy of Natural Sciences, Philadelphia, PABBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Essig Museum of Entomology, Berkeley, CAUCRCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Kansas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State University, M. T. James Entomological Collection, Pullman, WAWWUCWestern Washington University Insect Collection, Bellingham, WABOMBUSXerces Society – Bumble Bee Watch	PCYU	Packer Collection, York University, Toronto, Ontario, Canada
BBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Essig Museum of Entomology, Berkeley, CAUCRCUniversity of California, Riverside, CAUCMCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Kansas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State Department of Agriculture, Tumwater, WAWSUCWashington State University, M. T. James Entomological Collection, Pullman, WAWWUCWestern Washington University Insect Collection, Bellingham, WABOMBUSXerces Society – Bumble Bee Watch	PWRC	Patuxent Wildlife Research Center, US Geological Survey, Laurel, MD
BBSLPollinating Insect – Biology, Management, Systematics Research Unit, Logan, UTRSKMRoyal Saskatchewan Museum, Regina, Saskatchewan, CanadaRUACRutgers University Entomological Museum, New Brunswick, NJTAMUTexas A&M University Insect Collection, College Station, TXHansonThor Hanson's Private CollectionUCDCUniversity of California, Bohart Museum of Entomology, Davis, CAEMECUniversity of California, Essig Museum of Entomology, Berkeley, CAUCRCUniversity of California, Riverside, CAUCMCUniversity of Colorado Museum of Natural History, Boulder, COUCMSUniversity of Connecticut Insect Collection, Storrs, CTSEMCUniversity of Kansas, Snow Entomological Museum Collection, Lawrence, KSUNSMUniversity of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NEUNHCUniversity of New Hampshire Collection of Insects and Arthropods, Durham, NHUNMUniversity of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NMFWSEU.S. Fish and Wildlife Service, Vancouver, WAWFBMUniversity of Idaho, W. F. Barr Entomological Collection, Moscow, IDWSDAWashington State Department of Agriculture, Tumwater, WAWSUCWashington State University, M. T. James Entomological Collection, Pullman, WAWWUCWestern Washington University Insect Collection, Bellingham, WABOMBUSXerces Society – Bumble Bee Watch	ANSP	Philadelphia Academy of Natural Sciences, Philadelphia, PA
RSKM Royal Saskatchewan Museum, Regina, Saskatchewan, Canada RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Essig Museum of Entomology, Berkeley, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch	BBSL	Pollinating Insect – Biology, Management, Systematics Research Unit, Logan, UT
RUAC Rutgers University Entomological Museum, New Brunswick, NJ TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Essig Museum of Entomology, Berkeley, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA SUCC Society – Bumble Bee Watch	RSKM	
TAMU Texas A&M University Insect Collection, College Station, TX Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Essig Museum of Entomology, Berkeley, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch	RUAC	·
Hanson Thor Hanson's Private Collection UCDC University of California, Bohart Museum of Entomology, Davis, CA EMEC University of California, Essig Museum of Entomology, Berkeley, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch	TAMU	
EMEC University of California, Essig Museum of Entomology, Berkeley, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch	Hanson	·
EMEC University of California, Essig Museum of Entomology, Berkeley, CA UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch	UCDC	University of California, Bohart Museum of Entomology, Davis, CA
UCRC University of California, Riverside, CA UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
UCMC University of Colorado Museum of Natural History, Boulder, CO UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Setern Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
UCMS University of Connecticut Insect Collection, Storrs, CT SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		•
SEMC University of Kansas, Snow Entomological Museum Collection, Lawrence, KS UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		•
UNSM University of Nebraska-Lincoln State Museum, Morrill Hall, Lincoln, NE UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		•
UNHC University of New Hampshire Collection of Insects and Arthropods, Durham, NH UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
UNM University of New Mexico, Museum of Southwestern Biology, Division of Arthropods, Albuquerque, NM FWSE U.S. Fish and Wildlife Service, Vancouver, WA University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA Serces Society – Bumble Bee Watch		
FWSE U.S. Fish and Wildlife Service, Vancouver, WA WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
WFBM University of Idaho, W. F. Barr Entomological Collection, Moscow, ID WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
WSDA Washington State Department of Agriculture, Tumwater, WA WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
WSUC Washington State University, M. T. James Entomological Collection, Pullman, WA WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		·
WWUC Western Washington University Insect Collection, Bellingham, WA BOMBUS Xerces Society – Bumble Bee Watch		
BOMBUS Xerces Society – Bumble Bee Watch		
·		
PIVING Yale University, Peabody Milseum of Natural History, New Haven, C.1	PMNH	Yale University, Peabody Museum of Natural History, New Haven, CT

Records of subspecies are kept in the checklist as they were identified, but were only considered at the species level for purposes of calculating species richness. In some cases, the same records appear in multiple databases or literature sources (e.g. the same specimens may be referred to in a revision and again in a subsequent summary). Since this list is not quantitative at the species level, we did not attempt to address the "first" appearance per se or otherwise parse these duplicative instances, instead opting to report each dataset. Records that were not previously published in a peer-reviewed journal are treated as new state records and/or county records. A denotation of state record does not mean that we discovered the species through our own efforts, but rather that we highlight a digital record or database entry that we deem reliable, or that we present newly digitized information from the Washington State University M. T. James Entomological Collection (WSUC). Newly reported state records are denoted by a dagger symbol (†). Counties are listed in bold to denote new county records. We considered any species with a likely native range that does not include Washington state (e.g. species from Europe or known only from the eastern United States) to be introduced and denote them with an asterisk (*).

When available conservation status was assessed using the International Union for Conservation of Nature (IUCN), NatureServe, and the Xerces Society Red List of Pollinating Insects of North America. Species categorized as critically endangered may have an extremely high risk of extinction, while species categorized as vulnerable may have a high risk of extinction. Species categorized as least concern do not meet the criteria for other categories and are generally not the target of conservation action. Species missing data critical for the determination of its conservation status are categorized as data deficient. A more detailed description of the criteria determining each category can be found in IUCN Red List Categories and Criteria: Version 3.1 (IUCN 2001). NatureServe assesses and assigns ranks for species and ecosystems at the global (G1 – G5) and state levels (S1 – S5) (NatureServe 2024). Ranks range from critically endangered (G1 and S1) to secure (G5 and S5). A more detailed description of how NatureServe assigns conservation status can be found at https://www.natureserve.org/conservation-status-assessment (NatureServe 2024).

Some records were for species far outside of their known and expected range, with no known specimens or other information available to verify their accuracy. While these data contribute to an accurate account of species *recorded* in Washington, they could represent identification or labelling errors and seem less likely to occur in the state. Because this list may be used to inform conservation and research decisions, we placed such questionable records in a separate section to ensure that they are readily identifiable as unverified and caution readers to consider them in this context.

Expected species were determined from reviewing published species distribution maps that included Washington. Species with an expected distribution in Washington but no known records were highlighted as likely to occur in Washington. Additionally, species occurring near Washington in Oregon, Idaho, and/or British Columbia in habitats similar to those within Washington or with host plants occurring within Washington were also considered to likely occur in Washington. By these criteria, at least 120 additional species of bees are likely to occur in Washington. However, many specimens in museum collections await identification or formal description (Orr et

al. 2021) and thus some of these species may already have been collected in the state. Currently undescribed species would add to this total expected species.

Additionally, an interactive map with county-level data and the option to map bee records by family is available online (https://phylosolving.shinyapps.io/WA_bee_catalog/) as a shiny app (Chang et al. 2024), which was created using leaflet (Cheng et al. 2024) in R (R Core Team 2023). The dataset is associated with this paper and is not intended to be updated; instead, these data and new records generated by the Washington Bee Atlas or other research will be migrated to a "living" interface that is currently being developed.

Results and discussion

Using these data, we record 565 described species of bees in Washington State, representing 44 genera from all 6 families of bees known from North America (Table 2). The remaining bee family, Stenotritidae, is known only from Australia. We found records or data for 603 potential bee species in Washington state but removed 38 questionable records. *Andrena*, with 109 species, had the highest species richness of any genus in Washington state, comprising 20% of the total species. This is not surprising, as *Andrena* is known to be species rich in temperate bee communities of North America (e.g., Kilpatrick et al. 2020; Rhoades et al. 2018). As an example, 12% of the observed species in a survey of just montane areas of north-central Washington were *Andrena* (Wilson et al. 2010; Rhoades et al. 2018).

Ground nesting species frequently outnumber other bee groups in regional bee faunas (Cane 2008), and Washington's fauna is no exception (Fig. 1; see Suppl. material 1 for all the life history data for each species). Most Washington bees with known or presumed ecological data are ground nesting (254 species), followed by cavity nesting species (180 species). Some *Megachile* species are known to nest in cavities in the ground as well as excavate nests in the ground (Michener 2007). The literature is not always clear on this point, and some of these species may actually be cavity nesting instead of ground nesting and vice versa. Washington's bee fauna is primarily solitary (380 species) as are most species globally (Danforth et al. 2019), followed by cleptoparasites (90 species), social species (33 species), and social parasites (4 species). Floral preference is unknown for many of Washington's bees. However, for those with known floral preference data, Washington's bee fauna appears to be more polylectic (163 species) than oligolectic (110 species). Notable among the solitary ground nesting species found in Washington is the alkali bee, Nomia melanderi Cockerell, which is of considerable agricultural importance as an alfalfa pollinator (Cane 2008). Known for being the only managed solitary groundnesting species of bee in the world, large aggregations of N. melanderi can be found in Walla Walla County where nesting beds consisting of moist silty and periodically salted soils have been maintained and protected for decades (Cane 2008; Kapheim et al. 2021; Cane 2024), including reduced local speed limits to minimize mortality (Vinchesi 2014). Other notable native Washington solitary bees include the mason bees Osmia aglaia Sandhouse, O. atriventris Cresson, and O. lignaria Say, all of which are important raspberry pollinators (Drummond and Stubbs 1997; Andrikopoulos and Cane 2018).

Table 2. Bee species recorded from Washington state, not including questionable records. The number of introduced species is indicated in parentheses.

Andrenidae	Andrena	109 (1)	Halictidae	Agapostemon	3
	Calliopsis	opsis 4		Dufourea	5
	Panurginus	3		Halictus	6 63 (4)
	Perdita	9		Lasioglossum	
	Total	124 (1)		Nomia	1
				Sphecodes	8
				Total	84 (4)
Apidae	Anthophora	15	Megachilidae	Anthidiellum	2
	Apis	1 (1)		Anthidium	11 (2)
	Bombus	25 (1)		Ashmeadiella	8
	Brachymelecta	1		Atoposmia	2
	Ceratina	5		Chelostoma	2
	Diadasia	6		Coelioxys	8
	Epeolus	6		Dianthidium	7
	Epimelissodes	1		Dioxys	4
	Eucera	10		Heriades	4
	Habropoda	4		Hoplitis	12
	Melecta	3		Megachile	31 (3)
	Melissodes	23		Osmia	70 (2)
	Nomada	35		Protosmia	1
	Oreopasites	1		Stelis	15
	Triepeolus	8		Total	177 (7)
	Xylocopa	1(1)			
	Zacosmia	1			
	Total	150 (3)			
Colletidae	Colletes	14	Melittidae	Macropis	1
	Hylaeus	16 (2)		Total	1
	Total	30 (2)			

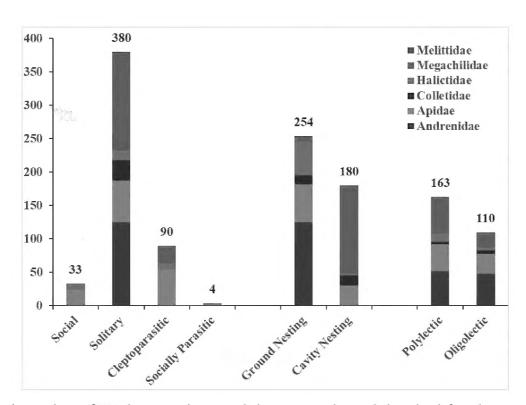


Figure 1. Total number of Washington bees with known ecological data by lifestyle, nesting preference, and floral preference.

The peak of bee activity in Washington statewide is between April and September with Megachilidae being the most species rich during this period (Fig. 2a). However, some species of Andrenidae, Apidae, and Megachilidae are active throughout the year. When comparing the seasonality geographically, Andrenidae has a higher peak in the spring on the west side of the Cascades indicating that the west side has more species of spring flying Andrenidae than the east side (Fig. 2b, c). Also, the Apidae peak earlier in the season on the west side than the east side. Different bee taxa vary in their seasonality (Oglivie and Forrest 2017). *Andrena*, except the subgenera *Callandrena* and *Cnemidandrena*, are mostly early spring species (LaBerge 1986b; Larkin et al. 2008; Oglivie and Forrest 2017). Most *Osmia* (Megachilidae) are also spring species; in contrast, *Megachile* spp. tend to be more active in the late summer (Oglivie and Forrest 2017).

Most of Washington is under sampled for bees (Figs 3, 4). The number of species by county almost certainly reflects which parts of the state have been more heavily sampled than others, rather than the actual species richness of that county (Fig. 5). Counties with more than 100 documented species (e.g., Benton, Chelan, King, Kittitas, Klickitat, Okanogan, Pierce, Spokane, Thurston, Walla Walla, Whitman, and Yakima Counties) are also home to Washington's largest cities and/or popular recreational areas and are more likely to have documented citizen or community scientist records. In addition, some of these same counties (e.g., Okanogan and Whitman Counties) were locations of research projects targeting bee biodiversity.

Washington is an ecologically diverse state, with the Cascade Mountains separating the western coastal forests from the arid interior forests and shrub-steppe to the east (Franklin and Dyrness 1973). According to EPA's Level III and IV Ecoregions of Washington map, the state has nine Level III ecoregions and 57 Level IV ecoregions (US Environmental Protection Agency 2012). The Columbia Plateau, located east of the Cascade Mountains, has the highest richness of bee species (Table 3; see Suppl. material 2 for species by ecoregion). Additionally, nine of the 44 genera in this dataset have been recorded from only east of the Cascade Mountains (Fig. 6), although some of these will likely be detected in western Washington in future surveys. Even so, we expect that some genera are indeed restricted to eastern Washington. For example, Zacosmia is a genus of cleptoparasites whose hosts (Anthophora (Micranthophora)) are associated with xeric or semi-xeric habitats (Michener 2007; Orr et al. 2018). No genus was recorded from only the west side of the state in the records we reviewed. Orr et al. (2021) found bee species richness was greatest in regions characterized by high solar insolation, high average potential evapotranspiration, low precipitation during the driest month, and decreased seasonal variation. Additionally, tree presence negatively impacted bee richness (Orr et al. 2021). As the Columbia Plateau meets these conditions, it is unsurprising that there is more species richness as well as more unique species in this ecoregion compared to the ecoregions west of the Cascade Mountains, where there are more trees and precipitation.

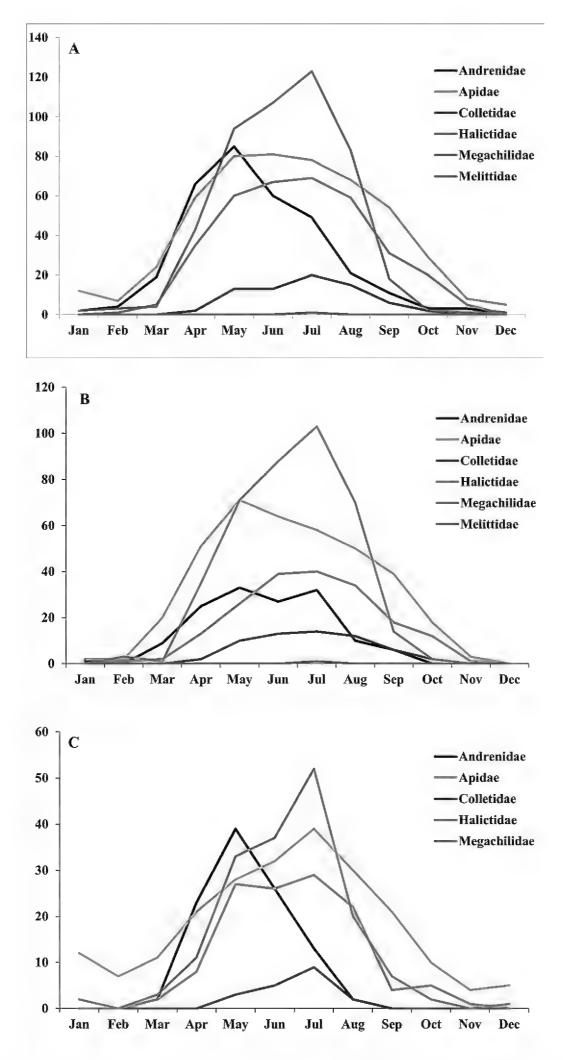


Figure 2. Seasonality of Washington bee species by family for **A** Washington state **B** east of the Cascade Mountains, and **C** west of the Cascade Mountains, based on collection or observation dates from records reviewed for this checklist.

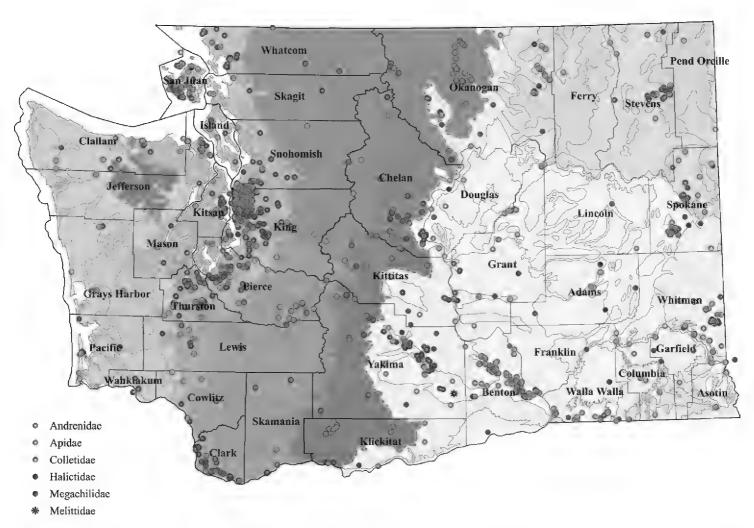


Figure 3. Map of the records for all families, excluding *Apis mellifera* and *Bombus* spp. This map was built in QGIS using a Level IV Shapefile from EPA as a basemap.

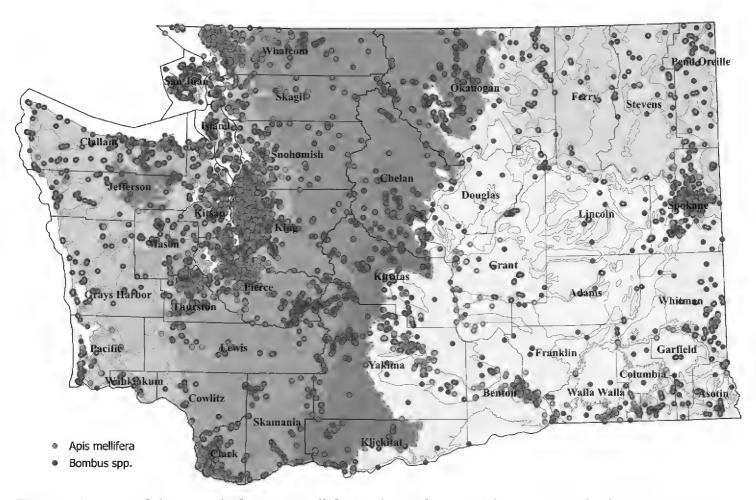


Figure 4. Map of the records for *Apis mellifera* and *Bombus* spp. This map was built in QGIS using a Level IV Shapefile from EPA as a basemap.



Figure 5. Bee species richness for each of the 39 counties of Washington. Whitman county in eastern Washington has the most recorded species (288), while Wahkiakum in western Washington has the least (16). This interactive map with additional county-level data and the option to filter records by family is available at: https://phylosolving.shinyapps.io/WA_bee_catalog/. This map was built in Leaflet (http://agafonkin.com/en/) using tiles from USGS.

Table 3. The number of bee species recorded in each EPA Level III Ecoregion.

EPA Level III Ecoregion	Number of Species			
Blue Mountains	32			
Cascades	74			
Coast Range	66			
Columbia Plateau	399			
Eastern Cascades Slopes and Foothills	157			
North Cascades	160			
Northern Rockies	139			
Puget Lowlands	213			
Willamette Valley	35			

Eighty-four species (15%) on this list have not been documented in the state since before 1970, with more than 80% of these from eastern Washington. More than a quarter of these species are cleptoparasites. In fact, nearly half of the recorded species of the cleptoparasitic genus *Nomada* haven't been reported in decades. Of the 84 species not documented in over 50 years, 16 are only known from their type specimens, 10 of which are cleptoparasites. Notable among these 16 species is the *Lysimachia* (loosestrife) specialist *Macropis steironematis opaca*, the single representative of Melittidae in Washington state. This species has not been sighted since 1882 when it was collected from Morgan's Ferry along the Yakima River, despite focused survey efforts in

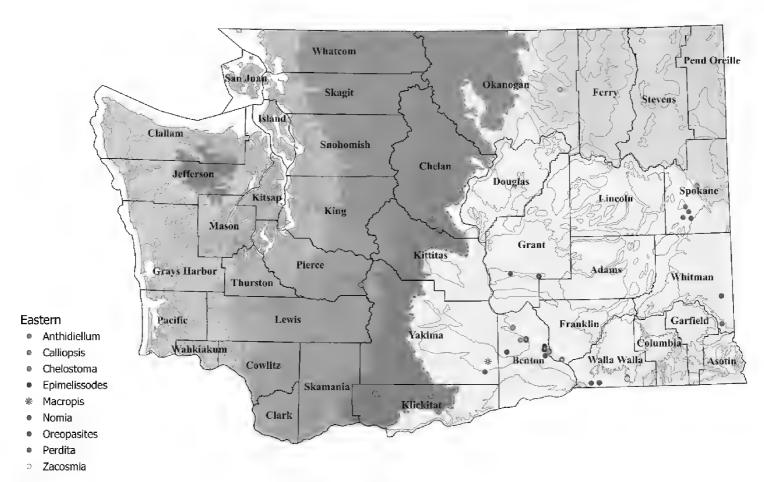


Figure 6. Map of the genera only recorded on the east side of the Cascade Mountains. This map was built in QGIS using a Level IV Shapefile from EPA as a basemap.

recent decades. *Macropis* are ecologically unusual in that they collect floral oils from *Lysimachia* spp. for nest provisioning as well as for lining nest cell walls (Cane et al. 1983; Michez and Patiny 2005; Packer 2023).

Of the 158 bee species with a federally and/or state determined conservation status, Washington has 42 bee species that have been determined to have a conservation status of vulnerable, imperiled or critically imperiled or endangered by organizations such as IUCN, the Xerces Society, and NatureServe (Table 4). Included are the following six species which have not been documented in the state in more than 50 years: Andrena aculeata, Perdita similis pascoensis, Megachile legalis, Osmia lanei, O. nigrobarbata, and Macropis steironematis opaca. Currently, the Washington Department of Fish and Wildlife State Wildlife Action Plan only identifies Bombus morrisoni, B. occidentalis, and B. suckleyi as species of greatest conservation need (SGCN) (Washington Department of Fish and Wildlife 2015). Future research should focus on determining the conservation needs of the remaining 39 species of possible conservation concern as well as the 407 species without conservation status determination. Nesting and floral resources are such vital components of bee survival, yet this data is lacking for so many species making it difficult to assess conservation statuses (Orr et al. 2022).

The bee fauna of Washington state is more species rich than its northern neighbor British Columbia, which has 483 documented species (Sheffield and Heron 2018). Future studies of Washington's more under-surveyed counties, such as Adams, Douglas, Franklin, Grant, and Lincoln in the Columbia Plateau as well as the 22 other counties with fewer than 100 documented species (Fig. 5), will add to this documented richness.

Table 4. Species with conservation statuses of possible conservation concern. CE = critically endangered and Vul = vulnerable (National Research Council); G2 = imperiled, G3 = vulnerable, S1 = critically imperiled, S2 = imperiled, S3 = vulnerable (NatureServe 2024).

Family	Species	CE	Vul	G2	G3	S 1	S2	S 3
Andrenidae	Andrena aculeata		X					
	Perdita similis pascoensis		X					
	Perdita wyomingensis sculleni		X					
Apidae	Anthophora crotchii				X			
	Anthophora neglecta				X			
	Anthophora occidentalis				X			
	Bombus appositus				X			
	Bombus caliginosus		X	X				X
	Bombus fervidus complex		X		X			
	Bombus flavidus							X
	Bombus frigidus						X	
	Bombus insularis				X			
	Bombus kirbiellus					X		
	Bombus lapponicus sylvicola							X
	Bombus morrisoni		X		X			
	Bombus occidentalis		X		X		X	
	Bombus suckleyi	X		X		X		
	Bombus vagans						X	
	Bombus vandykei							X
	Eucera douglasiana		X					
	Eucera frater lata		X					
	Habropoda miserabilis			X				
Megachilidae	Anthidium banningense				X			
	Anthidium edwardsii				X			
	Hoplitis orthognatha		X					
	Hoplitis producta subgracilis		X					
	Megachile anograe				X			
	Megachile dentitarsus				X			
	Megachile legalis				X			
	Megachile nevadensis				X			
	Megachile snowi				X			
	Megachile umatillensis				X			
	Osmia austromaritima				X			
	Osmia iridis				X			
	Osmia lanei				X*			
	Osmia unei Osmia nigrobarbata				X			
	Osmia nigrovarvata Osmia obliqua				X			
	Osmia odontogaster			X	Λ			
	Osmia vuoniogasier Osmia pulsatillae			X				
	Osmia thysanisca			Λ	X			
	Osmia trifoliama				л Х*			
Melittidae	_	X			Λ			
iviciittidae	Macropis steironematis opaca	Λ						

^{*} possibly extirpated in Washington (NatureServe 2024).

Based on recent records of bees from adjacent states and British Columbia, we anticipate at least another 102 species are likely to be recorded in Washington state making the species richness more comparable to the nearly 700 species expected to occur in Oregon (Best et al. 2022). Future efforts should also target the 84 species that have not

been documented in over 50 years. It is likely many of these species have been undetected over time due to characteristics that make them inherently uncommon such as limited distributions, floral specialization, cleptoparasitic habits, or difficulty in identification (Colla et al. 2012). There are also many specimens in museum and private collections that, due to various reasons, are still waiting for identification or for formal species descriptions (Orr et al. 2021). As museums work towards digitizing their collections, some of these long-absent species may be rediscovered and new species may be detected or even described. Cleptoparasitic bee species have been found to be good indicator taxa for assessing bee communities (Sheffield et al. 2013a, 2013b), so determining the status of these missing cleptoparasitic species will help future assessments of the bee community health in Washington state.

Checklist

Sources used to compile this checklist: ¹GBIF (polygon); ²GBIF (without coordinates); ³Ascher and Pickering 2022 (Discover Life); ⁴Ratnasingham and Hebert 2007 (BOLD); ⁵Hanson Collection; ⁶WSDA; ⁷WSUC; ⁸Mayer et al. 2000; ⁹Rozen 1992; ¹⁰Fabian 2014; ¹¹LaBerge 1980; ¹²LaBerge 1973; ¹³LaBerge 1989; ¹⁴LaBerge and Ribble 1975; ¹⁵LaBerge 1986a; ¹⁶LaBerge 1985; ¹⁷LaBerge 1977; ¹⁸Bouseman and LaBerge 1978; ¹⁹LaBerge 1969; ²⁰LaBerge and Ribble 1972; ²¹LaBerge and Bouseman 1970; ²²Hanson and Ascher 2018; ²³Miliczky 2008; ²⁴Mitchell 1935a; ²⁵Mitchell 1937a; ²⁶Mitchell 1937b; ²⁷Mitchell 1935b; ²⁸Mitchell 1937c; ²⁹Mitchell 1936a; ³⁰Mitchell 1936b; ³¹Rightmyer et al. 2010; ³²Rhoades et al. 2017; ³³Looney et al. 2019; ³⁴Michener 1935; ³⁵Linsley 1939; ³⁶Adlakha 1969; ³⁷Stephen 1952; ³⁸Gibbs 2010; ³⁹Roberts 1973; ⁴⁰Sinha and Michener 1958; ⁴¹Gonzalez and Griswold 2013; ⁴²Michener 1938a; ⁴³Michener 1938b; ⁴⁴Michener 1939; ⁴⁵Michener 1938c; ⁴⁶Clement et al. 2006; ⁴⁷Koch et al. 2017; ⁴⁸Timberlake 1971; ⁴⁹LaBerge 1961; ⁵⁰Cockerell 1906a; ⁵¹Cockerell 1911; ⁵²Cockerell 1904; ⁵³Timberlake 1943; ⁵⁴Timberlake 1951; ⁵⁵Snelling 1970; ⁵⁶Gibbs 2011; ⁵⁷McGinley 2003; ⁵⁸Daly 1973; ⁵⁹Wilson et al. 2010; ⁶⁰Ribble 1974; ⁶¹Thompson and Pellmyr 1992; ⁶²Thorp 1969; ⁶³Ribble 1968; ⁶⁴Onuferko and Sheffield 2022; ⁶⁵Droege et al. 2010; ⁶⁶Timberlake 1958; ⁶⁷Timberlake 1968; ⁶⁸Ghisbain et al. 2020; ⁶⁹Koch et al. 2016; ⁷⁰Strange and Tripodi 2019; ⁷¹Shapiro et al. 2014; ⁷²LaBerge 1956a; ⁷³Onuferko 2017; ⁷⁴Onuferko 2018; ⁷⁵Rightmyer 2008; ⁷⁶Cockerell 1910; ⁷⁷Rodeck 1947; ⁷⁸Cane 2008; ⁷⁹Gardner and Gibbs 2020; ⁸⁰Gibbs et al. 2013; 81McGinley 1986; 82Bohart 1948; 83Snelling 1966; 84Stephen 1954; 85Donovan 1977; ⁸⁶Thorp and LaBerge 2005; ⁸⁷Crawford 1926; ⁸⁸Timberlake 1956; ⁸⁹Timberlake 1964; ⁹⁰Baker 1975; ⁹¹Grigarick and Stange 1968; ⁹²Mitchell 1944; ⁹³Raw 2002; ⁹⁴Mitchell 1942; 95 Mitchell 1927; 96 Hurd and Michener 1955; 97 Michener 1936a; 98 Swenk 1914; ⁹⁹Mitchell 1933; ¹⁰⁰Sandhouse 1939; ¹⁰¹White 1952; ¹⁰²Griswold 1983; ¹⁰³Michener 1947; ¹⁰⁴Rowe 2017; ¹⁰⁵Thorp et al. 1983; ¹⁰⁶Brooks 1983; ¹⁰⁷Orr et al. 2018; ¹⁰⁸La-Berge 1956b; ¹⁰⁹Timberlake 1969; ¹¹⁰Broemeling 1988; ¹¹¹Rodeck 1949; ¹¹²Tepedino and Griswold 1995; ¹¹³Viereck 1916; ¹¹⁴Cockerell 1937; ¹¹⁵Viereck et al. 1904a; ¹¹⁶Viereck et al. 1904b; ¹¹⁷Viereck et al. 1904c; ¹¹⁸Viereck et al. 1905; ¹¹⁹Viereck et

- al. 1906; ¹²⁰Cockerell 1903; ¹²¹Cockerell 1906b; ¹²²Gardner and Gibbs 2023; ¹²³Rozen 1958; ¹²⁴National Park Service (personal communication); ¹²⁵Michener 1936b; ¹²⁶Swenk 1908; ¹²⁷Cockerell 1913; ¹²⁸Akre et al. 1982; ¹²⁹Cockerell 1912; ¹³⁰Taylor 2008; ¹³¹Mitchell 1938; ¹³²Zack 1984; ¹³³Waters 2023; ¹³⁴Miliczky 2000; ¹³⁵Green Collection; ¹³⁶Combs 2019
- † State record
- * Introduced
- **\$** Species of possible conservation concern
- # Most recent record before 1970

Andrenidae: Andreninae: Andrenini

Genus Andrena Fabricius

- 1. \$\\$\pmax\$ Andrena (Andrena) aculeata LaBerge, 1980. County records: Whitman¹¹. Seasonality: May¹¹ (1913¹¹). Conservation status: Vulnerable (Shepherd 2005a, National Research Council 2007)
- **2.** ‡ *Andrena* (*Andrena*) *birtwelli* Cockerell, 1901. County records: Kittitas^{1,2,11}. Seasonality: Jul^{1,2} (1949^{1,2}). Collections: SEMC
- **3.** Andrena (Andrena) buckelli Viereck, 1924. County records: Garfield^{1,2,3,46}, Kittitas^{1,2,11}, Whitman^{7,11}. Seasonality: May^{1,2,3}, Jun^{7,46}, Jul^{1,2} (1989^{1,2,3}). Collections: BBSL, SEMC, WSUC. Floral records: FABACEAE: Astragalus sp.³
- **4.** Andrena (Andrena) ceanothifloris cretata LaBerge, 1980. County records: Okanogan^{1,2,3,59}. Seasonality: Jul^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. Floral records: ERICACEAE: Ledum glandulosum^{3,59}
- **5.** Andrena (Andrena) frigida Smith, **1853**. County records: King^{1,2,3,11,117}, Kitsap^{2,3,11}, Pend Oreille^{3,11}, Pierce^{3,11}, Snohomish^{3,11}, **Walla Walla**³, Whitman^{3,11,117}, Yakima^{3,11}. Seasonality: Feb¹¹⁷, Mar^{1,2,3,117}, Apr^{2,3}, Jul² (1996^{1,2}). Collections: INHS, NYSM, UNHC, UCRC, WSUC. [= Cilissa albihirta Ashmead, 1890]
- **6.** Andrena (Andrena) hemileuca Viereck, 1904. County records: Ferry^{3,11}, Island⁷, King^{1,2,3,7,11,117}, Kitsap^{3,11}, Lewis⁷, Pierce^{3,11}, Skagit¹⁰, Snohomish^{1,2,3}, Thurston¹³³, Whitman^{3,11,117}. Seasonality: Apr⁷, May^{1,2,3,7,133} (2017¹³³). Collections: ANSP, INHS, NMNH, SEMC, WSUC, WWUC. Holotype. USA, Washington Territory; PANS 10286. [= Andrena (Andrena) asmi Viereck, 1904]. Holotype. USA, Washington, Whitman County, Pullman; C. V. Piper. Floral records: ASPARA-GACEAE: Camassia quamash¹³³; ROSACEAE: Sorbus scopulina⁸.
- 7. ‡ *Andrena* (*Andrena*) *jennei* Viereck, 1916. County records: Yakima^{1,2,3,113}. Seasonality: May^{1,2,113} (1903^{1,2,113}). Collections: ANSP. **Holotype**. USA, Washington, Yakima County, North Yakima; 20 May 1903; Eldred Jenne; No. 60, ANSP 4013
- **8.** † *Andrena* (*Andrena*) *laminibucca* Viereck and Cockerell, 1914. County records: **Jefferson**^{1,2}, **Kittitas**^{2,3}. Seasonality: May^{2,3}, Jun^{1,2} (2014^{1,2}). Collections: BBSL, INHS

- **9.** † *Andrena* (*Andrena*) *macoupinensis* Robertson, 1900. County records: Benton^{2,3,7}, Kittitas^{2,3}, Yakima^{2,3}, Whitman⁷. Seasonality: Apr^{2,3,7} (1989^{2,3}). Collections: INHS, WSUC
- **10.** Andrena (Andrena) milwaukeensis Graenicher, 1903. County records: Chelan^{1,2}, Kittitas⁷, Klickitat^{1,2}, Lewis^{1,2,4}, Spokane^{1,2,7}, Thurston¹³³. Seasonality: Apr^{1,2}, May^{1,2,4}, June¹³³ (2019¹³³). Collections: BBSL, RSKM, WSUC. Floral records: FABACEAE: Lupinus albicaulis¹³³
- **11.** *Andrena* (*Andrena*) *perarmata* Cockerell, **1898**. County records: King^{1,2,3,11}, **Kitsap**^{2,3}, **Kittitas**^{2,3}, Pierce^{3,11}, Thurston^{3,7,11}, **Walla Walla**^{1,2,3}, Whitman^{7,8}, Yakima^{3,11}. Seasonality: Feb^{1,2}, Mar^{1,2,3,7,11}, Apr^{1,2,3} (1989^{2,3}). Collections: BBSL, INHS, NMNH, WSUC. **Holotype**. USA, Washington, King County, Seattle; 15 March 1897; USNM 18982, USNM ENT 00533688. Floral records: API-ACEAE: *Lomatium*⁸
- **12.** ‡ *Andrena* (*Andrena*) *prolixa* LaBerge, 1980. County records: Pierce^{1,2,3,11}. Seasonality: Apr^{1,2,11} (1945^{1,2,11}). Collections: INHS
- **13.** Andrena (Andrena) rufosignata Cockerell, 1902. County records: Clallam^{1,2,3,11}, King^{1,3,11}, Okanogan^{1,2,3,59}, Pierce^{3,11}, Thurston¹³³, Whatcom^{1,2}. Seasonality: May^{1,2,133}, Jun^{1,2,3,133}, Jul^{1,2,3} (2020¹³³). Collections: BBSL, INHS, OSUC, SEMC. Floral records: APIACEAE: Lomatium pugetensis¹³³; ASPARAGACEAE: Camassia quamash¹³³; BORAGINACEAE: Myosotis laxa⁵⁹; CAPRIFOLIACEAE: Symphoricarpos albus¹³³; ERICACEAE: Phyllodoce empetriformis^{3,59}; OROBANCHAECEAE: Pedicularis bracteosa var. latifolia⁵⁹; ROSACEAE: Potentilla gracilis¹³³
- **14.** *Andrena* (*Andrena*) *saccata* Viereck, **1904**. County records: Clallam^{1,2,3,11}, Grays Harbor^{3,11}, King^{1,2,3,11,117}, Pacific^{3,11}, **Pierce**^{1,2,3}, **Snohomish**^{2,3}, **Walla Walla**^{1,2,3}. Seasonality: Apr¹¹⁷, May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{2,3} (1975^{1,2,3}). Collections: BBSL, INHS, OSUC
- **15.** † *Andrena* (*Andrena*) *schuhi* LaBerge, 1980. County records: Spokane^{1,2}, Whitman^{1,2,3,7}. Seasonality: Mar^{1,2}, Apr⁷, May^{1,2,7} (2011^{1,2}). Collections: BBSL, SEMC, WSUC
- 16. Andrena (Andrena) thaspii Graenicher, 1903. County records: Chelan^{3,11}, Clallam^{3,11}, Columbia^{1,2,3,11}, Garfield¹¹, Island¹¹, Jefferson^{1,2,3,11}, King^{1,2,3,11}, Kittitas^{2,3}, Pierce¹¹, San Juan¹¹, Skagit^{1,2,3,11}, Snohomish^{2,3}, Thurston^{1,2,3,11,117,133}, Whitman^{3,11}, Yakima^{3,11}. Seasonality: Jun^{1,2,3,117,133}, Jul^{1,2,3}, Aug^{2,3} (2020¹³³). Collections: AMNH, ANSP, BBSL, INHS, NMNH. [= Andrena clypeoporaria Viereck, 1904]. Holotype. USA, Washington, Thurston County, Olympia; 12 June 1895; PANS 10290. [= Andrena indotata Viereck, 1904]. Holotype. USA, Washington State; PANS 10295. Floral records: CAPRIFOLIACEAE: Symphoricarpos albus¹³³; FA-BACEAE: Lupinus albicaulis¹³³
- **17.** Andrena (Andrena) topazana Cockerell, 1906. County records: Asotin^{3,11}, Columbia^{3,11}, Okanogan^{1,2,3,59}, Walla Walla^{1,2,3}, Whitman⁷. Seasonality: Jun^{1,2,3}, Jul^{1,2,7}, Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL, WSUC. Floral records: ASTERACEAE: Achillea millefolium⁵⁹, Cirsium arvense⁸; ROSACEAE: Potentilla gracilis⁵⁹, Rosa nutkana ssp. nutkana^{3,59}

- **18.** Andrena (Andrena) vicinoides Viereck, 1904. County records: Asotin^{3,11}, Clallam^{3,11}, Island⁷, King^{3,11}, Kitsap^{3,7,11}, Okanogan^{1,2,3,59}, Pacific^{3,11}, Pierce^{3,7,11}, San Juan^{1,2,11,124,136}, Skagit^{1,2,3,11,124}, Thurston^{3,11,117}, Whitman^{3,11}. Seasonality: May^{1,2,7}, Jun^{1,2,3,117}, Jul^{1,2,3,7} (2017¹³⁶). Collections: BBSL, PWRC, WSUC. Floral records: FABACEAE: Lupinus sericeus⁵⁹; ROSACEAE: Potentilla gracilis⁵⁹, Rosa nutkana¹³⁶
- **19.** Andrena (Andrena) washingtoni Cockerell, **1901**. County records: Clallam³, Douglas¹,²,³, King³,¹¹,¹¹¹, Pierce¹,²,³,¹¹, Skamania³,¹¹, Thurston¹,³,¹¹,¹¹¹. Seasonality: Apr¹¹¹, May¹,²,³,¹¹¹, Jun¹,³,¹¹,¹¹¹, Jul³ (2014³). Collections: BBSL, INHS, JRYA, NMNH. **Holotype**. USA, Washington, Thurston County, Olympia; 2 June 1895; Type No. 18938, USNM ENT 00533758
- 20. ‡ Andrena (Callandrena sensu lato) helianthi Robertson, 1891. County records: Whitman⁸. Seasonality: (1962–1963⁸). Collections: WSUC. Floral records: ASTERACEAE: Helianthus annuus⁸, Solidago canadensis⁸. Comments: Phylogenetic analyses (Larkin et al. 2006; Pisanty et al. 2021) have found the subgenus Callandrena to be paraphyletic. Callandrena in its strict sense was found to be monophyletic (Larkin et al. 2006; Pisanty et al. 2021). The remaining species, including A. helianthi, belong to another separate unnamed group that is sometimes referred to as Callandrena sensu lato.
- 21. † Andrena (Cnemidandrena) colletina Cockerell, 1906. County records: Klickitat^{2,3}. Seasonality: Sep^{2,3} (1989^{2,3}). Collections: INHS
- **22.** Andrena (Cnemidandrena) columbiana Viereck, **1917**. County records: **Benton**⁷, **Clallam**³, Island^{3,85}, **Jefferson**^{1,2}, King^{3,85}, Okanogan^{1,2,3,59}, Pacific^{1,2,3,85}, Pend Oreille^{3,85}, San Juan^{3,85}, **Snohomish**^{2,3}, **Thurston**⁷, Whatcom^{3,85}, Yakima^{3,85}. Seasonality: May^{1,2}, Jun^{1,2,85}, Jul^{1,2,85}, Aug^{1,2,3,85} (2015^{1,2,3}). Collections: BBSL, INHS, JRYA, WSUC. Floral records: ASTERACEAE: Anaphalis margaritacea^{3,59}
- **23.** Andrena (Cnemidandrena) nubecula Smith, 1853. County records: Pend Oreille^{3,85}, Walla Walla^{2,3}, Whitman^{3,85}, Yakima^{3,85}. Seasonality: Aug² (1988^{2,3}). Collections: INHS
- **24.** Andrena (Cnemidandrena) scutellinitens Viereck, 1916. County records: Okanogan^{1,2,3,59}. Seasonality: Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. Floral records: ASTERACEAE: Achillea millefolium⁵⁹, Anaphalis margaritacea⁵⁹, Erigeron speciosus^{3,59}
- **25.** *Andrena* (*Cnemidandrena*) *sulcata* **Donovan, 1977**. County records: Adams^{1,3,85}, **Benton**^{2,3,7}, Chelan^{3,85}, **Yakima**^{2,3}. Seasonality: Sep^{1,2,3,7}, Oct² (1991²). Collections: INHS, NMNH, WSUC. **Holotype**. USA, Washington, Adams County, Ritzville; 9 September 1920; RC Shannon; Type No. 71075, USNM ENT 00533741. **Paratype**. USA, Washington, Chelan County, Wenatchee; 25 September 1938; J Standish
- **26.** *Andrena* (*Cnemidandrena*) *surda* Cockerell, **1910**. County records: Kittitas^{2,3,85}, Pacific^{3,85}, Yakima^{3,85}. Seasonality: Sep^{2,3} (1989^{2,3}). Collections: INHS
- 27. † Andrena (Cremnandrena) anisochlora Cockerell, 1936. County records: Clark^{1,2}. Seasonality: May^{1,2} (2020^{1,2}). Collections: iNaturalist
- **28.** Andrena (Dactylandrena) berberidis Cockerell, 1905. County records: King^{3,16}, Kittitas^{2,3}, Pierce¹⁶, Thurston¹³³, Whitman^{3,16}. Seasonality: Apr², May^{2,3,133}, June¹³³ (2020¹³³). Collections: INHS. Floral records: ASPARAGACEAE:

- Camassia quamash¹³³; ASTERACEAE: Eriophyllum lanatum¹³³; CAPRIFOLI-ACEAE: Plectritis congesta¹³³
- **29.** *Andrena* (*Dactylandrena*) *porterae* Cockerell, **1900**. County records: King^{1,2,117}, Kittitas^{2,3}. Seasonality: Feb^{2,3}, Apr^{1,2,117} (1994²). Collections: INHS, NMNH. [= *Andrena neurona* Viereck, 1904]. **Holotype**. USA, Washington, King County, Seattle; 17 April 1896
- 30. Andrena (Dasyandrena) cristata Viereck, 1916. County records: Pierce^{3,17}
- 31. Andrena (Dasyandrena) obscuripostica Viereck, 1916. County records: Pierce¹⁷
- **32.** *Andrena* (*Diandrena*) *chalybioides* (Viereck, 1904). Collections: NMNH. [= *Andrena* (*Parandrena*) *perchalybia* Viereck, 1916]. **Holotype**. USA, Washington State; HK Morrison
- **33.** Andrena (Diandrena) cuneilabris Viereck, 1926. County records: Thurston¹³³. Seasonality: May¹³³ (2020¹³³). Floral records: RANUNCULACEAE: Ranunculus occidentalis¹³³
- **34.** Andrena (Diandrena) evoluta Linsley and MacSwain, 1961. County records: Adams^{3,62}, Okanogan^{1,2,3,4,59}, Whitman^{3,7,62}. Seasonality: Apr⁷, Jun^{1,2,3,4}, Jul^{1,2,23} (2004^{1,2,3,4,59}). Collections: BBSL, WSUC. Floral records: ASTERACEAE: Arnica sororia⁵⁹, Crepis atrabarba^{3,59}; LILIACEAE: Calochortus lyallii⁵⁹
- **35.** *Andrena* (*Diandrena*) *nothocalaidis* (Cockerell, 1905). County records: Adams^{3,62}, Benton^{1,2,7}, Chelan^{3,62}, Klickitat^{1,2}, Okanogan^{3,7,62}, Pierce⁶², Spokane^{1,2}, Whitman⁶², Yakima^{3,62}. Seasonality: Mar^{1,2}, May^{1,2}, Jun^{1,2}, Jul^{1,2} (2015^{1,2}). Collections: BBSL, WSUC
- **36.** † *Andrena* (*Diandrena*) *subchalybea* Viereck, **1916**. County records: Kittitas². Seasonality: Apr², May² (1989²). Collections: INHS
- **37.** *Andrena* (*Geissandrena*) *trevoris* Cockerell, 1897. County records: Asotin^{2,3,20}, Columbia^{3,20}, Island^{3,20}, Jefferson^{3,20}, King^{1,3,20}, Kitsap^{3,20}, Klickitat^{3,20}, Pierce^{3,20}, San Juan^{2,3,20,136}, Thurston^{1,2,3,20,133}, Walla Walla^{1,2,3,20}, **Whatcom**³, Whitman^{2,3,20}. Seasonality: Jun^{1,2,20}, Jul^{1,2,133}, Aug³ (2017^{133,136}). Collections: BBSL, INHS, JRYA, NMNH, WSUC. [= *Andrena semipolita* Viereck, 1904]. **Holotype**. USA, Washington, Thurston County, Olympia; 12 June 1895; Type No. 18952, USNM ENT 00533746. Floral records: CAPRIFOLIACEAE: *Symphoricarpos albus*^{133,136}
- **38.** *Andrena* (*Gonandrena*) *flocculosa* LaBerge and Ribble, 1972. County records: Kittitas^{2,3}, Pierce^{3,20}, Thurston¹³³, Whitman^{3,7,20}, Yakima^{1,2,3,7,20}. Seasonality: May^{1,2,3,20,133} (2017¹³³). Collections: INHS, NMNH, WSUC. **Holotype**. USA, Washington, Yakima County, North Yakima; 20 May 1903; E Jenne. **Lectotype**. USA, Washington, Pierce County, Parkland; 14 May 1962; R. Tentineh. Floral records: ASPARAGACEAE: *Camassia quamash*¹³³
- **39.** Andrena (Holandrena) cressonii infasciata Lanham, 1949. County records: Benton^{1,3,16}, King^{3,16}, **Kittitas**^{2,3}, Pierce^{3,16}, Walla Walla^{1,2,16}, Whitman^{1,2,3,7,8,16}, Yakima^{3,16}. Seasonality: Apr^{1,3,7}, May^{1,2,3,7}, Jun^{1,2,3,7} (2003²). Collections: BBSL, INHS, UCRC, WSUC
- **40.** † *Andrena* (*Larandrena*) *miserabilis* Cresson, 1872. County records: Benton⁷, Kittitas^{2,3}, Okanogan⁷, Whitman⁷. Seasonality: May^{2,3} (1989^{2,3}). Collections: INHS, WSUC. Floral records: ROSACEAE: *Physocarpus malvaceus*⁸

- **41.** *Andrena* (*Leucandrena*) *barbilabris* (**Kirby, 1802**) County records: **Benton**^{1,2,7}, **Chelan**⁷, Clallam^{1,2,3,15}, Island^{3,15}, King^{3,7,15,117}, Pacific^{3,15}, **Pierce**^{1,3}, Snohomish^{1,2,3,15}, Thurston^{3,15,117}, Whitman^{3,7,15}, **Yakima**⁷. Seasonality: Mar^{1,2}, Apr^{1,2,3,7,117}, May^{1,3,7}, Jun^{1,117}, Jul^{1,2}, Aug¹, Sep¹ (2015^{1,2}). Collections: AMNH, BBSL, INHS, UCRC, WSUC. [= *Andrena macgillivrayi* Cockerell, 1897]. [= *Andrena placida* Smith, 1853]
- **42.** ‡ *Andrena* (*Melandrena*) *carlini* Cockerell, 1901. County records: King^{1,2,3,117}. Seasonality: Apr¹¹⁷, May^{1,2,3} (1919^{1,2,3}). Collections: OSUC. Floral records: GROSSULARIACEAE: *Ribes*¹¹⁷
- **43.** *Andrena* (*Melandrena*) *cerasifolii* Cockerell, **1896**. County records: Stevens^{3,15}, Whitman^{3,15}
- **44.** ‡ *Andrena* (*Melandrena*) *commoda* **Smith, 1879**. County records: Columbia¹⁸, Klickitat^{3,18}, Pierce^{3,18}, Walla Walla^{3,18}, Whitman^{1,2,3,7,18}, Yakima^{3,18}. Seasonality: May^{3,7}, Jun^{1,2,3} (1969^{1,2,3}). Collections: BBSL, UCRC, WSUC
- **45.** † *Andrena* (*Melandrena*) *cyanura* Cockerell, 1916. County records: Benton⁷, Kittitas⁷. Collections: WSUC
- **46.** † *Andrena* (*Melandrena*) *erythrogaster* (Ashmead, **1890**). County records: **Kittitas**^{2,3}. Seasonality: May^{2,3} (1989^{2,3}). Collections: INHS
- **47.** *Andrena* (*Melandrena*) *hallii* Dunning, 1898. County records: Whitman^{1,2,3,21,117}. Collections: NMNH. Lectotype. USA, Washington, Whitman County, Pullman; CV Piper; USNM ENT 00533619
- **48.** Andrena (Melandrena) lupinorum Cockerell, **1906**. County records: King^{3,18}, Thurston¹³³, Whitman^{3,18}. Seasonality: April¹³³, May¹³³, June¹³³ (2020¹³³). Floral records: ASPARAGACEAE: Camassia quamash¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³, Symphoricarpos albus¹³³; ERICACEAE: Arctostaphylos uva-ursi¹³³; LILIACEAE: Fritillaria affinis¹³³; ROSACEAE: Potentilla gracilis¹³³
- 49. Andrena (Melandrena) nivalis Smith, 1853. County records: Asotin^{3,18}, Benton^{3,7,18}, Garfield^{3,18}, Jefferson^{1,2}, King^{3,18}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, Pierce^{3,18}, San Juan^{1,2,3,22,124}, Spokane^{1,2}, Thurston^{1,2,3,18,117,133}, Walla Walla^{3,18}, Whitman^{1,2,3,7,18,117}. Seasonality: Apr^{1,2,133}, May^{1,2,7,18,117,133}, Jun^{1,2,3,133}, Jul^{1,2} (2020¹³³). Collections: BBSL, NMNH, PWRC, WSUC. [= Andrena compactiscopa Viereck, 1904]. Holotype. USA, Washington, Whitman County, Pullman; CV Piper. [= Andrena junonia Viereck, 1904]. Holotype. USA, Washington, Thurston County, Olympia; 1 May 1894; T Kincaid; Type No. 18939, USNM ENT 00533694. [= Andrena solidula Viereck, 1904]. Holotype. USA, Washington, Whitman County, Pullman; CV Piper. Floral records: APIACEAE: Lomatium utriculatum¹³³; ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Taraxacum officinale¹³³; ERICACEAE: Arcostaphylos uva-ursi¹³³; ONAGRACEAE: Chamerion angustifolium¹³³; ROSACEAE: Physocarpus malvaceus⁸, Potentilla gracilis¹³³, Rosa nutkana ssp. nutkana^{3,59}
- **50.** Andrena (Melandrena) perplexa Smith, 1853. County records: Cowlitz^{1,2,3}, Garfield¹³⁵, Kittitas^{2,3}, Thurston¹³³, Whitman^{2,3,7,21,117}. Seasonality: Apr¹¹⁷,

- May^{1,2,3,7,117,133,135}, Jun^{7,133} (2023¹³⁵). Collections: BBSL, INHS, NMDG. [= Andrena viburnella Graenicher, 1903]. Floral records: BRASSICACEAE: Teesdalia nudicaulis¹³³; ROSACEAE: Potentilla gracilis¹³³
- 51. Andrena (Melandrena) pertristis carliniformis Viereck and Cockerell, 1914. County records: Chelan^{3,18}, San Juan⁵, Yakima^{3,18}. Seasonality: Apr⁵, May⁵ (2009⁵). Floral records: APIACEAE: Heracleum sphondylium ssp. montanum⁵; ASPARAGACEAE: Camassia quamash⁵; GERANIACEAE: Geranium molle⁵; RANUNCULACEAE: Ranunculus californicus × occidentalis⁵
- **52.** † *Andrena* (*Melandrena*) *sola* Viereck, 1916. County records: Klickitat^{1,2}, San Juan^{1,2,3,6,124}, Spokane^{1,2}. Seasonality: Apr^{1,2}, May^{1,2}, Jun⁶ (2017⁶). Collections: BBSL, PWRC, WSDA
- **53.** Andrena (Melandrena) subaustralis Cockerell, **1898**. County records: Benton^{2,3,7}, Kittitas^{2,3}, Thurston¹³³, Whitman^{1,3,7,21,117}, Yakima^{3,21}. Seasonality: Apr^{1,2,3,7,133}, May⁷ (2017¹³³). Collections: INHS, WSUC. Floral records: ASTERACEAE: Balsamorhiza sagittata⁸, Taraxacum officinale¹³³
- **54.** *Andrena* (*Melandrena*) *subtilis* **Smith**, **1879**. County records: Island^{3,21}, Kittitas^{2,3,21}, San Juan^{5,136}, Spokane^{1,2,3,21}, Walla Walla^{3,21}, Whitman^{1,2,3,7,8,21,117}, Yakima^{3,21}. Seasonality: Apr^{1,2,5,7}, May^{2,3,5,7}, Jun^{1,7} (2017¹³⁶). Collections: BBSL, INHS, WSUC. Floral records: BRASSICACEAE: *Teesdalia nudicaulis*⁵; GERANIACEAE: *Geranium molle*⁵; RANUNCULACEAE: *Ranunculus californicus* × *occidentalis*⁵; ROSACEAE: *Rosa*⁸, *Rosa nutkana*¹³⁶
- 55. Andrena (Melandrena) transnigra Viereck, 1904. County records: Jefferson^{1,2}, King^{1,2,18,117}, Kitsap^{2,3,18}, Kittitas^{2,3,7}, Klickitat^{1,2}, Pierce^{1,2,3,18}, Skagit², Spokane^{3,18}, Stevens^{1,2}, Thurston^{7,133}. Seasonality: Mar⁷, Apr^{1,2,3,7,18,117,133}, May^{1,2,3,7}, Jun^{1,2,7} (2017¹³³). Collections: BBSL, BugGuide, INHS, NMNH, PCYU, WSUC. Holotype. USA, Washington, King County, Seattle; 17 April 1896; T Kincaid. Floral records: ERICACEAE: Arctostaphylos uva-ursi¹³³. Comments: Sheffield (2020) resurrected Andrena cyanura from synonymy with Andrena transnigra. We did not inspect all of the recorded specimens, and it is possible that some of these records represent A. cyanura.
- **56.** Andrena (Melandrena) vicina Smith, **1853**. County records: King^{3,18,117}, Kittitas^{2,3}, San Juan^{1,2,3,124,136}, Snohomish^{1,2,3,23}, Stevens^{1,3,18}, Thurston^{3,18,117,133}, Whitman⁸. Seasonality: Jan^{1,3}, Mar^{2,133}, Apr¹¹⁷, May^{1,2,3}, Jun^{1,117}, Jul^{1,2}, Aug^{1,2}, Nov^{2,3}, Dec² (2017^{133,136}). Collections: INHS, PWRC, WSUC. Floral records: ASPARAGACE-AE: Camassia quamash¹³³; ASTERACEAE: Taraxacum officinale¹³⁶; BERBERI-DACEAE: Berberis aquifolium¹³⁶; GERANIACEAE: Geranium viscosissimum⁸; ROSACEAE: Holodiscus discolor⁸, Physocarpus malvaceus⁸, Rosa⁸, Rubus parviflorus⁸
- **57.** ‡ *Andrena* (*Micrandrena*) *candidiformis* Viereck and Cockerell, 1914. County records: Spokane^{3,7,63}. Seasonality: Jun⁷ (1912⁷). Collections: WSUC
- **58.** *Andrena* (*Micrandrena*) *chlorogaster* Viereck, **1904**. County records: Chelan⁷, Kittitas^{2,3}, Klickitat^{1,2}, Thurston¹³³, Walla Walla^{3,63}, Whitman^{3,7,63}, Yakima^{2,3,7}. Seasonality: Apr^{1,2,3,7,133}, May^{1,3,7,133}, Jun¹³³ (2020¹³³). Collections: AMNH, INHS, WSUC. Floral records: APIACEAE: *Lomatium pugetensis*¹³³, *L. utriculatum*¹³³;

- ASTERACEAE: Leucanthemum vulgare¹³³; OROBANCHACEAE: Castilleja levisecta¹³³; RANUNCULACEAE: Ranunculus occidentalis¹³³; ROSACEAE: Fragaria virginiana¹³³, Physocarpus malvaceus⁸, Potentilla⁸, P. gracilis¹³³; SALI-CACEAE: Salix⁷
- **59.** Andrena (Micrandrena) illinoiensis Robertson, 1891. County records: Grant^{3,7,63}, Thurston¹³³, Whitman^{3,7,63,117}, Yakima^{2,3}. Seasonality: Apr^{2,3,7,117}, May^{3,7,133}, Jul⁷ (2017¹³³). Collections: INHS, UCRC, WSUC. Floral records: ROSACEAE: Fragaria virgniana¹³³
- **60.** *Andrena* (*Micrandrena*) *melanochroa* Cockerell, 1898. County records: Chelan^{3,63}, Pierce⁷, Spokane^{1,2}, Thurston^{1,2,3,63,117}, Whitman^{3,7,8,63}. Seasonality: May^{1,2,7,117}, Jun^{1,2} (2011^{1,2}). Collections: BBSL, NMNH, WSUC. Holotype. USA, Washington, Thurston County, Olympia; 25 May 1894; T Kincaid; Type No. 18917, USNM ENT 00533649. Floral records: APIACEAE: *Lomatium*⁸; GROSSULARIACEAE: *Ribes aureum*⁸; ROSACEAE: *Malus domestica*⁸
- **61.** *Andrena* (*Micrandrena*) *microchlora* Cockerell, 1922. County records: Benton^{1,2,3,7}, Kittitas⁷, Klickitat^{1,2,3,63}, Lincoln⁷, Spokane^{1,2}, Thurston¹³³, Whitman^{1,3,6,7,61,63}, Yakima^{2,3}. Seasonality: Mar^{1,2,7,61}, Apr^{1,2,3,7,61,133}, May^{1,2,6,7}, Jun⁷ (2018¹³³). Collections: BBSL, INHS, WSDA, WSUC. Floral records: APIACE-AE: *Lomatium utriculatum*¹³³
- **62.** ‡ *Andrena* (*Micrandrena*) *nigrae* Robertson, 1905. County records: Asotin⁶³, Whitman^{3,7,63}. Seasonality: May⁷ (1920⁷). Collections: WSUC
- **63.** *Andrena* (*Micrandrena*) *piperi* Viereck, **1904**. County records: Asotin^{3,63,135}, Benton^{1,2,3,7,63}, Chelan^{3,7,63}, **Kittitas**^{2,3}, **Spokane**^{1,2}, **Walla Walla**⁷, Whitman^{1,2,3,7,63,117}, **Yakima**^{2,3}. Seasonality: Mar¹³⁵, Apr^{1,2,3,63}, May^{1,2,3,63} (2021¹³⁵). Collections: BBSL, INHS, NMDG, WSUC. **Holotype**. USA, Washington, Whitman County, Pullman; CV Piper
- **64.** ‡ *Andrena* (*Micrandrena*) *salictaria* Robertson, 1905. County records: Spokane^{3,7,63}, Whitman^{3,7,63}. Seasonality: Apr⁷, May⁷, Jun⁷, Jul⁷ (1930⁷). Collections: WSUC
- **65.** Andrena (Onagrandrena) raveni Linsley and MacSwain, 1961. County records: Adams⁸⁶, Benton⁷. Seasonality: Apr⁷ (1995⁷). Collections: WSUC
- **66.** *Andrena* (*Parandrena*) *andrenoides* (Cresson, 1878). County records: Garfield¹³⁵, Thurston¹¹⁷, Yakima^{2,3}. Seasonality: Apr^{2,3}, May^{117,135} (2023¹³⁵). Collections: INHS, NMDG. [= *Parandrena andrenoides* (Cresson, 1878)]
- **67.** ‡ *Andrena (Parandrena) nevadensis* (Cresson, 1879). County records: Thurston^{3,20}, Whitman^{3,7,20}, Yakima^{3,20}. Seasonality: Apr⁷ (1936⁷). Collections: WSUC
- **68.** Andrena (Plastandrena) crataegi Robertson, 1893. County records: Asotin⁷, King^{3,19}, Kittitas^{2,3}, Okanogan⁷, Pierce^{1,3,19}, Spokane⁷, Stevens^{3,7,19}, Thurston¹³³, Walla Walla^{1,2}, Whitman^{1,2,3,7}, Yakima^{3,7}. Seasonality: Jan¹, Apr^{2,3}, May^{2,7,133}, Jun^{1,2,3,7}, Jul^{1,2} (2017¹³³). Collections: BBSL, INHS, UCRC, WSUC. Floral records: APIACEAE: Lomatium pugetensis¹³³; ROSACEAE: Physocarpus malvaceus⁸
- **69.** Andrena (Plastandrena) prunorum prunorum Cockerell, 1896. County records: Adams⁷, Asotin⁷, Benton^{1,2,3,7}, Chelan^{1,2,3,7}, Clallam^{1,2}, Ferry², Franklin^{1,2,3,7,19,117},

- **Grant**^{1,2,3,7}, Island^{3,7,19}, **Jefferson**^{1,2}, King^{1,2,3,7,117}, Kitsap^{2,23,134}, **Kittitas**^{1,2,3,7}, **Klickitat**^{1,2,3}, **Lincoln**⁷, **Mason**⁷, Okanogan^{1,2,3,7,59}, **Pierce**⁷, San Juan^{1,2,3,5,6,19,22,124}, **Skagit**^{1,2}, Snohomish^{1,2,3,23}, **Spokane**^{1,2,3,7}, **Stevens**^{1,7}, Thurston^{1,2,3,6,19,117,133}, Walla Walla^{1,2,3,7,71}, Whitman^{1,2,3,6,7,8,117}, Yakima^{1,2,3,7,23}. Seasonality: Mar^{1,23,7}, Apr^{1,2,3,7,23}, May^{1,2,3,5,7,19,23,117,133}, Jun^{1,2,3,5,6,7,19,117,133}, Jul^{1,2,3,6,7,23,133}, Aug^{1,2,3,6,7}, Sep², Oct⁷ (20221,2). Collections: AMNH, BBSL, BugGuide, iNaturalist, INHS, NMNH, PCYU, PWRC, SEMC, WSDA, WSUC. [= Andrena kincaidii Cockerell, 1897]. Holotype. USA, Washington, Thurston County, Olympia; 2 June 1894; Type No. 3698, USNM ENT 00533636. [= Andrena pascoensis Cockerell, 1897]. Holotype. USA, Washington, Franklin County, Pasco; 25 May 1896; Type No. 18936, USNM ENT 00533683. Floral records: APIACEAE: Chaerophyllum temulum³, Lomatium³; ASPARAGACEAE: Camassia quamash¹³³; ASTER-ACEAE: Anaphalis margaritacea^{3,59}; BRASSICACEAE: Sisymbrium altissimum⁸, Teesdalia nudicaulis¹³³; CACTACEAE: Pediocactus nigrispinus⁷; CARYOPHYL-LACEAE: Cersatium arvense¹³³; GERANIACEAE: Geranium viscosissimum⁸; HY-DRANGEACEAE: Philadelphus lewisii^{8,23}; ONAGRACEAE: Clarkia amoena¹³³; ROSACEAE: Fragaria virginiana¹³³, Holodiscus discolor⁸, Physocarpus malvaceus⁸, Potentilla gracilis¹³³; SALICACEAE: Salix⁷
- 70. Andrena (Ptilandrena) astragali Viereck and Cockerell, 1914. County records: Jefferson^{1,2}, Kittitas^{3,14}, Okanogan^{1,2,3,59}, San Juan⁵, Spokane^{1,2}, Thurston¹³³, Whitman⁷. Seasonality: Apr^{1,2}, May^{1,2,5,133}, Jun^{1,2,3,5,7,133} (2023⁷). Collections: BBSL, WSUC. Floral records: APIACEAE: Lomatium pugetensis¹³³; ASPARAGACEAE: Triteleia hyacinthina¹³³; ASTERACEAE: Balsamorhiza deltoidea¹³³, Eriophyllum lanatum¹³³, Hypochaeris radicata¹³³, Leucanthemum vulgare¹³³, Solidago simplex¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³, Symphoricarpos albus¹³³; CARYOPHYL-LACEAE: Cerastrium arvense¹³³; FABACEAE: Lupinus albicaulis¹³³; MELANTHI-ACEAE: Toxicoscordion venenosus¹³³, T. venenosum var. venenosum⁵; RANUNCU-LACEAE: Ranunculus occidentalis¹³³; ROSACEAE: Potentilla gracilis¹³³
- **71.** Andrena (Ptilandrena) auricoma Smith, 1879. County records: Garfield¹³⁵, Kittitas^{2,3}, Walla Walla^{3,14}, Whitman⁷. Seasonality: Apr², May¹³⁵, Jun⁷, Jul⁷ (2023¹³⁵). Collections: INHS, NMDG, WSUC. Floral records: ASTERACEAE: Achillea millefolium⁸; ROSACEAE: Physocarpus malvaceus⁸, Potentilla⁸
- **72.** Andrena (Ptilandrena) caerulea Smith, 1879. County records: Island^{3,7}, Kittitas^{1,2,3,7}, Klickitat^{1,2}, Lewis⁷, Pierce¹⁴, Thurston^{1,2,3,14,117,133}, Whitman^{7,8}. Seasonality: Apr^{3,7,133}, May^{1,2,7,14,117,133}, Jun^{1,2,133}, Jul^{1,2} (2020¹³³). Collections: BBSL, NMNH, SEMC, UCRC, WSUC. [= Andrena coerulea var. territa Cockerell, 1898]. Holotype. USA, Washington, Thurston County, Olympia; 20 May 1894; Type No. 18943, USNM ENT 00533743. [= Pterandrena acrypta Viereck, 1904]. [= Pterandrena erigenoides Viereck, 1904]. Floral records: ASPARA-GACEAE: Camassia quamash¹³³; ASTERACEAE: Microseris laciniata¹³³; CAR-YOPHYLLACEAE: Cerastium arvense¹³³; CAPRIFOLIACEAE: Symphoricarpos albus¹³³; RANUNCULACEAE: Ranunculus⁸, R. occidentalis¹³³; ROSACEAE: Prunus virginiana⁸

- **73.** Andrena (Ptilandrena) chlorura Cockerell, 1916. County records: King^{3,14}, Thurston¹³³, Whitman^{3,14}. Seasonality: May¹³³ (2017¹³³). Floral records: ROSACEAE: Fragaria virginiana¹³³
- **74.** *Andrena* (*Ptilandrena*) *lawrencei* Viereck and Cockerell, 1914. County records: Benton^{1,2,7}, Kittitas^{2,3,7,14}, Okanogan¹⁴, Spokane^{1,2}, Whitman^{3,14}, Yakima^{3,14}. Seasonality: Mar^{1,2}, Apr^{1,2,3,7}, May^{1,2,7} (2015^{1,2}). Collections: BBSL, INHS, WSUC
- **75.** *Andrena* (*Ptilandrena*) *nigrihirta* (Ashmead, 1890). County records: Clallam^{3,14}, Grays Harbor^{3,14}, King^{3,14}, Pierce^{1,3,14}, **Spokane**^{1,2}, Thurston¹³³, Whitman^{3,7,14,114,117}. Seasonality: Apr^{1,2}, May^{1,2,7,14,117}, Jun¹³³, Jul^{1,3} (2018¹³³). Collections: BBSL, INHS, WSUC. [= *Andrena decussata* Viereck, 1904]. **Holotype**. USA, Washington, Whitman County, Pullman. Floral records: CAPRIFOLIACEAE: *Symphoricarpos albus*¹³³
- 76. Andrena (Ptilandrena) nigrocaerulea Cockerell, 1897. County records: Chelan^{7,130}, Clallam^{3,14}, Columbia¹⁴, Island⁷, King^{1,2,3,14,117}, Kittitas^{3,14}, Klicki**tat**^{1,2}, Pierce^{3,14}, **San Juan**^{1,2,124}, **Spokane**^{1,2}, Thurston^{3,14,117,133}, Walla Walla^{1,2,3,14}, Whitman^{1,2,3,6,7,8,14,61,117}, Yakima^{3,14}. Seasonality: Apr^{1,2,7,61,133}, May^{1,2,7,14,117,133}, Jun^{1,2,3,6,7,117,133}, Jul^{1,2,7} (2020¹³³). Collections: BBSL, NMNH, PWRC, WSDA, WSUC. [= Andrena seattlensis Viereck, 1904]. Holotype. USA, Washington, King County, Seattle; 17 May 1896. [= Pterandrena nigrocaerulea Viereck, 1904]. Floral records: ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Balsamorhiza deltoidea¹³³, Crepis capillaris¹³³, Eriophyllum lanatum¹³³, Hypochaeris radicata¹³³, Leucanthemum vulgare¹³³, Microseris laciniata¹³³, Taraxacum officinale¹³³; BOR-AGINACEAE: Hackelia venusta¹³⁰; BRASSICACEAE: Teesdalia nudicaulis¹³³; CAMPANULACEAE: Campanula rotundifolia¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³; CARYOPHYLLACEAE: Cerastium arvense¹³³; ERICACEAE: Arctostaphylos uva-ursi¹³³; FABACEAE: Vicia sativa¹³³; GERANIACEAE: Geranium viscosissimum⁸; IRIDACEAE: Sisyrinchium idahoense¹³³; PLANTAGINACEAE: Collinsia grandiflora¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; RANUN-CULACEAE: Ranunculus occidentalis¹³³; ROSACEAE: Potentilla gracilis¹³³
- 77. Andrena (Ptilandrena) pallidiscopa (Viereck, 1904). County records: Benton⁷, Kittitas⁷, Klickitat^{3,15}, Walla Walla^{3,15}, Whitman^{3,7,15}. Seasonality: Apr⁷, May⁷ (2023⁷). Collections: WSUC
- **78.** Andrena (Ptilandrena) ribblei LaBerge, 1977. County records: Okanogan^{1,2,3,59}, Pierce^{3,17}. Seasonality: Jul^{1,2,3,17}, Aug¹⁷ (2004^{1,2,3,59}). Collections: BBSL. Floral records: BRASSICACEAE: Smelowskia calycina⁵⁹; POLEMONIACEAE: Polemonium pulcherrimum^{3,59}; ROSACEAE: Potentilla gracilis⁵⁹
- **79.** Andrena (Scaphandrena) chapmanae Viereck, 1904. County records: Adams⁷, Chelan^{1,2,3}, Garfield^{1,2,3,10,46}, Klickitat^{1,2,7}, Whitman⁷. Seasonality: Mar⁷, Apr^{1,2}, May^{1,2,3}, Jun⁷ (2012^{1,2}). Collections: BBSL, WSUC
- **80.** Andrena (Scaphandrena) gordoni Ribble, 1974. County records: Benton^{1,2}, Whitman⁶⁰. Seasonality: Mar^{1,2}, Apr^{1,2}, May⁶⁰ (2015^{1,2}). Collections: AMNH, BBSL. Paratype. USA, Washington, Whitman County, Pullman; May; AL Melander; WSU No. 402.

- **81.** *Andrena* (*Scaphandrena*) *merriami* Cockerell, 1901. County records: Asotin^{3,60}, Benton^{1,2,3,7}, Kittitas^{2,3,60}, Klickitat^{1,2}, Okanogan⁷, Spokane^{1,2}, Walla Walla^{3,60}, Whitman^{1,2,3,6,7,8,60,117}, Yakima^{3,60}. Seasonality: Mar^{1,7}, Apr^{1,2,3,7,117}, May^{1,2,3,7,117}, Jul⁶ (2015^{1,2}). Collections: BBSL, INHS, WSDA, WSUC. [= *Andrena pullmani* Viereck, 1904]. Holotype. USA, Washington, Whitman County, Pullman. Floral records: APIACEAE: *Lomatium*⁸; ROSACEAE: *Prunus avium*⁸
- **82.** *Andrena* (*Scaphandrena*) *scurra* Viereck, **1904**. County records: Adams^{3,7,60}, Benton^{1,2,3,7,60}, Chelan^{1,2,3,7,60}, Garfield^{1,2,3,4,46}, Grant^{3,7,60}, Kittitas^{3,60}, Okanogan^{3,7,60}, Spokane^{1,2,3,60}, **Walla Walla**^{1,2,3}, Whitman^{1,2,3,4,7,60}. Seasonality: Mar^{1,2}, Apr^{1,2,3,7}, May^{1,2,3,4,7}, Jun^{1,2,3,7}, Jul^{1,2} (2015^{1,2}). Collections: BBSL, FMNH, INHS, PCYU, SEMC, WSUC
- **83.** *Andrena* (*Scaphandrena*) *shoshoni* **Ribble, 1974**. County records: Whitman³². Seasonality: May³² (2013³²)
- **84.** *Andrena* (*Scaphandrena*) *sladeni* Viereck, **1924**. County records: Asotin^{3,60}, **Benton**⁷, Kittitas^{3,60}, Whitman^{7,61}, **Yakima**⁷. Seasonality: Mar^{7,61}, Apr^{7,61} (1991⁶¹). Collections: WSUC
- **85.** ‡ *Andrena* (*Scaphandrena*) *walleyi* Cockerell, 1932. County records: Spokane^{3,60}, Whitman⁷. Seasonality: May⁷ (1918⁷). Collections: WSUC
- 86. Andrena (Simandrena) angustitarsata Viereck, 1904. County records: Asotin^{2,3,7,13}, Ferry^{1,2,3}, King^{1,2,3,7,13}, Kittitas², Klickitat^{1,2,3,13}, Lewis^{3,7,13}, Pierce^{3,7,13}, Spokane^{1,2,3,13}, Thurston¹³³, Walla Walla^{1,2,3,13}, Whitman^{1,2,3,6,7,8,13,61,117}. Seasonality: Mar^{3,7,61}, Apr^{1,2,7,133}, May^{1,2,3,7,133}, Jun^{1,2,6,7,133} (2020¹³³). Collections: AMNH, BBSL, INHS, NMNH, SEMC, UCDC, UCRC, WSDA, WSUC. [Andrena (Simandrena) angustitarsata Viereck, 1904]. Holotype. USA, Washington Territory. [= Andrena mustelicolor Viereck, 1904]. Holotype. USA, Washington, Whitman County, Pullman; CV Piper. Floral records: APIACEAE: Lomatium⁸, L. pugetensis¹³³, L. utriculatum¹³³; ASTERACEAE: Achillea millefolium¹³³, Balsamorhiza deltoidea¹³³, Eriophyllum lanatum¹³³; BRASSICACEAE: Lepidium campestre¹³³, Teesdalia nudicaulis¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³; RANUNCU-LACEAE: Ranunculus⁸; ROSACEAE: Malus domestica⁸, Physocarpus malvaceus⁸, Potentilla gracilis¹³³, Prunus virginiana⁸, Sorbus scopulina⁸, Rosa⁸, Rubus parviflorus⁸
- **87.** *Andrena* (*Simandrena*) *orthocarpi* Cockerell, 1936. County records: Klickitat^{1,2,3,13}, Thurston¹³³. Seasonality: Apr^{1,2}, May¹³³ (2020¹³³). Collections: AMNH. Floral records: APIACEAE: *Lomatium pugetensis*¹³³, *L. utriculatum*¹³³
- **88.** *Andrena* (*Simandrena*) *pallidifovea* (Viereck, 1904). County records: Benton^{1,3,7,13}, Chelan^{1,2,3}, Kittitas^{2,3}, Spokane^{1,2,3,13}, Thurston¹³³, Walla Walla^{1,2,3,13}, Whitman^{3,7,8,13,117}, Yakima^{3,7,13}. Seasonality: May^{1,2,3,7}, Jun^{1,2,7,133}, Jul¹ (2019¹³³). Collections: BBSL, INHS, WSUC. [= *Pterandrena pallidifovea* Viereck, 1904]. Floral records: ASTERACEAE: *Eriophyllum lanatum*^{8,133}, *Solidago simplex*¹³³
- **89.** †* *Andrena* (*Taeniandrena*) *wilkella* (**Kirby, 1802**). County records: **Whitman**⁷. Seasonality: May⁷, Jun⁷ (2023⁷). Collections: WFBM, WSUC
- **90.** Andrena (Thysandrena) candida Smith, 1879. County records: Adams^{3,17}, Asotin^{3,17}, Benton^{2,3,7}, Clark^{3,17}, Island^{2,3,7,17}, King^{1,2,3,17,117}, Kitsap^{2,3}, Pacific^{3,17},

- Pierce^{1,2,3,7,17}, San Juan^{3,17}, Skagit^{1,2,3,17}, **Spokane**^{1,2}, Thurston^{117,133}, Walla Walla^{1,2,3,17}, Whatcom^{1,3,17}, Whitman^{3,7,8,17,117}, Yakima^{3,7,17}. Seasonality: Feb², Mar^{2,3,7,117}, Apr^{1,2,3,7,117}, May^{1,2,7,133}, Jun^{1,2,117,133}, Jul^{1,2,3,7} (2020¹³³). Collections: AMNH, BBSL, INHS, NMNH, UCDC, UCRC, WSUC. [= *Andrena subcandida* Viereck, 1904]. **Holotype**. USA, Washington, King County, Seattle; 14 March 1896; T Kincaid. Floral records: APIACEAE: *Lomatium*⁸, *L. utriculatum*¹³³; ASTERACEAE: *Balsamorhiza sagittata*⁸; LAMIACEAE: *Prunella vulgaris*¹³³; ROSACEAE: *Prunus avium*⁸
- **91.** Andrena (Thysandrena) knuthiana Cockerell, 1901. County records: Clallam³, King^{3,17}, Okanogan^{1,2,3,59}, Pierce^{3,17}, San Juan^{3,5,17}, Snohomish⁷, Walla Walla^{3,17}, Whitman^{3,7,17}. Seasonality: Apr^{5,7}, Jul^{1,2,3,7} (2014³). Collections: BBSL, JRYA, WSUC
- **92.** *Andrena* (*Thysandrena*) *medionitens* Cockerell, **1902**. County records: Franklin^{1,2,3,17,117}, **Grant**⁷, Kittitas^{1,2,3,17}, Pierce^{3,17}, **Spokane**⁷, Walla Walla^{1,2,3,17}, Whitman^{1,2,3,17}. Seasonality: May^{1,2,7,17,117}, Jun¹, Jul^{1,2} (2003²). Collections: BBSL, INHS, NMNH, SEMC, WSUC. **Holotype**. USA, Washington, Franklin County, Pasco; 25 May 1896; Type No. 18921, USNM ENT 00533648
- 93. ‡ Andrena (Thysandrena) trizonata (Ashmead, 1890). County records: Pierce^{1,3}, Whitman^{3,17}. Seasonality: Mar¹, Apr^{1,3} (1946^{1,3}). Collections: INHS. Floral records: ROSACEAE: *Physocarpus malvaceus*⁸
- **94.** *Andrena* (*Thysandrena*) *vierecki* Cockerell, **1904**. County records: King^{3,17}, Kittitas^{2,3}, Klickitat¹⁷, Thurston¹³³, Whitman^{3,7,17}, Yakima^{3,17}. Seasonality: Apr^{2,3}, May⁷, Jun¹³³ (2018¹³³). Collections: INHS, WSUC. Floral records: CAPRIFO-LIACEAE: *Symphoricarpos albus*¹³³
- **95.** Andrena (Thysandrena) w-scripta Viereck, 1904. County records: Asotin^{3,17}, Benton⁷, Chelan^{3,17}, Clallam³, Ferry^{1,2,3,17}, King^{2,3,17}, Kitsap^{2,3}, Kittitas^{2,3}, Klickitat^{1,2}, Pierce^{3,17}, Snohomish^{1,3}, Spokane^{1,2}, Thurston¹³³, Walla Walla^{3,17}, Whitman^{2,3,7,17}, Yakima^{2,3}. Seasonality: Mar⁷, Apr^{2,3,7}, May^{1,2,3,7,133}, Jul^{1,2,3}, Aug^{1,2}, Nov^{1,3} (2020¹³³). Collections: BBSL, INHS, JRYA, SEMC, WSUC. Floral records: APIACEAE: Lomatium pugetensis¹³³
- **96.** Andrena (Trachandrena) amphibola (Viereck, 1904). County records: Asotin^{3,12}, Benton^{1,2}, Chelan^{3,12}, Island^{3,7,12}, Jefferson^{3,12}, King^{2,3,12}, Kitsap^{3,12}, Kittitas³, Klickitat^{1,2}, Mason^{3,12}, Pacific^{1,2,7}, San Juan^{1,2,3,12}, Thurston^{3,7,12,133}, Whitman^{3,7,8,12}. Seasonality: Apr^{1,2,3,7}, May^{1,7,133}, Jun⁷, Jul^{1,7} (2019¹³³). Collections: BBSL, EMEC, INHS, NMNH, UCRC, WSUC. [= Trachandrena crassihirta Viereck, 1904]. Holotype. USA, Washington State (presumably)^{12,116}. [= Trachandrena hadra Viereck, 1904]. Holotype. USA, Washington Territory. Floral records: ASPARA-GACEAE: Camassia quamash¹³³; LAMIACEAE: Agastache urticifolia⁸
- **97.** ‡ *Andrena* (*Trachandrena*) *cleodora cleodora* (Viereck, 1904). County records: King^{2,3,12}, Kitsap^{3,12}, Klickitat^{3,12}, Pierce^{3,12}, Stevens^{3,12}, Whitman^{3,12}, Yakima^{3,12}. Seasonality: Jul³ (1927³). Collections: INHS, UCRC
- **98.** Andrena (Trachandrena) cupreotincta Cockerell, 1901. County records: Benton^{1,2,3,7}, Ferry^{3,12}, Island^{3,12}, King^{1,2,3,12}, Kittitas^{2,3}, Lincoln^{3,7,12}, Mason^{1,2,3,12,116}, Pacific^{3,12}, Pierce^{3,12}, San Juan^{3,12}, Snohomish^{3,12}, Spokane^{3,12}, Stevens^{3,12},

- Thurston^{3,12,133}, Walla Walla^{3,12}, Whitman^{3,7,12}. Seasonality: Apr^{1,2,3,7,12}, May^{1,2,3,7,12,133}, Jun^{2,7} (2017¹³³). Collections: AMNH, BBSL, INHS, NMNH, UCDC, WSUC. **Holotype**. USA, Washington, Mason County, Skokomish River; 26 April 1892; T Kincaid; Type No. 18937, USNM ENT 00532972. [= *Trachandrena ochreopleura* Viereck, 1904]. **Holotype**. USA, Washington, Mason County, Skokomish River; 5 May 1912; USNM Type No 28535. Floral records: PLUMBAGINACEAE: *Armeria maritima*¹³³
- **99.** ‡ *Andrena* (*Trachandrena*) *cyanophila* Cockerell, **1906**. County records: Spokane^{1,2,3,12}, Whitman^{3,7,12}. Seasonality: May⁷, Jun⁷, Jul^{1,2} (1945^{1,2}). Collections: INHS, WSUC
- **100.** ‡ *Andrena* (*Trachandrena*) *forbesii* Robertson, 1891. County records: Spo-kane³, Whitman^{1,3,7,12}. Seasonality: Apr⁷, May^{1,3,7}, Jun^{1,7} (1924³). Collections: BBSL, INHS, UCRC, WSUC
- **101.** *Andrena* (*Trachandrena*) *fuscicauda* (Viereck, 1904). County records: King^{1,2,3,12}, Kitsap^{3,12}, **Pacific**⁷, **Pierce**^{1,2,3}, Thurston¹³³. Seasonality: Apr^{1,2,3,7}, May^{1,2,133} (2018¹³³). Collections: INHS, NMNH, UCDC, WSUC. [= *Trachandrena fuscicauda* Viereck, 1904]. **Holotype**. USA, Washington Territory; PANS 10293. Floral records: ASPARAGACEAE: *Camassia quamash*¹³³
- **102.** †‡ *Andrena* (*Trachandrena*) *hippotes* Robertson, **1895**. County records: Benton⁷, Pierce³, Whitman^{1,3,7}, Yakima^{1,3}. Seasonality: Apr^{1,3,7}, May^{1,7}, Jun^{3,7} (1966³). Collections: CUIC, INHS, WSUC
- **103.** Andrena (Trachandrena) mariae Robertson, 1891. County records: Lincoln⁷, Thurston¹³³, Whitman^{3,7,12}. Seasonality: Apr¹³³, May¹³³, Jun⁷ (2017¹³³). Collections: WSUC. Floral records: APIACEAE: Lomatium utriculatum¹³³; CARYO-PHYLLACEAE: Cersatium arvense¹³³
- **104.** *Andrena* (*Trachandrena*) *miranda* Smith, **1879**. County records: Asotin^{3,12}, Columbia¹², King^{3,12}, Kitsap^{3,12}, **Klickitat**^{1,2}, Okanogan^{1,2,3,59}, Pend Oreille^{3,12}, Pierce^{3,12}, **Spokane**^{1,2}, Stevens^{3,12}, Thurston^{1,2,3,12,133}, Walla Walla^{3,12}, **Whatcom**⁶, Whitman^{2,3,7,12}. Seasonality: May^{7,133}, Jun^{1,2,3,6,7,12,133}, Jul^{1,2,3,7}, Aug^{1,2} (2020¹³³). Collections: BBSL, CUIC, INHS, NMNH, WSDA, WSUC. [= *Andrena grandior* Cockerell, 1897]. **Holotype**. USA, Washington, Thurston County, Olympia; 18 June 1895; Type No. 18954, USNM ENT 00533617. Floral records: APIACEAE: *Lomatium utriculatum*¹³³; ASPARAGACEAE: *Camassia quamash*¹³³; ASTERACEAE: *Achillea millefolium*¹³³; BRASSICACEAE: *Lepidium campestre*¹³³; CAPRIFOLIACEAE: *Symphoricarpos albus*¹³³; ROSACEAE: *Potentilla gracilis*^{3,59}, *Rubus parviflorus*^{3,59}
- **105.** Andrena (Trachandrena) quintiliformis Viereck, **1916**. County records: Okanogan^{1,2,3,59}, Whitman^{3,7,12}, Yakima^{3,12}. Seasonality: May⁷, Jun^{1,2,3,7}, Jul^{1,2,3,7}, Aug^{1,2,3} (2004^{1,2,3}). Collections: BBSL, WSUC. Floral records: ROSACEAE: *Potentilla gracilis*^{3,59}
- **106.** Andrena (Trachandrena) salicifloris Cockerell, **1897.** County records: Clallam^{3,12}, Grays Harbor^{3,12}, Island^{3,12}, **Jefferson**^{1,2,3}, King^{2,3,7,12,116}, Kitsap^{2,3,12}, **Klickitat**^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{3,12}, Pierce^{1,2,3,12}, Skagit¹⁰, Snohomish^{1,2,3,12},

- **Spokane**^{1,2}, **Stevens**^{1,2}, Thurston^{1,2,3,12,116,133}, Whitman^{1,3,7,12}. Seasonality: Apr^{1,2,3,7,12,116}, May^{1,2,3,7,12,116,133}, Jun^{1,2,3,7}, Jul^{1,3}, Aug², Sep¹, Nov^{1,3} (2017¹³³). Collections: AMNH, BBSL, INHS, NMNH, OSUC, UCMC, WSUC, WWUC. [= *Trachandrena auricauda* Viereck, 1904]. **Holotype**. USA, Washington State. Floral records: ASPARAGACEAE: *Camassia quamash*¹³³; GROSSULARIACE-AE: *Ribes*¹¹⁶; ROSACEAE: *Rosa nutkana* ssp. *nutkana*^{3,59}; SALICACEAE: *Salix*¹¹⁶
- **107.** *Andrena* (*Trachandrena*) *semipunctata* Cockerell, 1902. County records: King^{1,2,3,12}, Kittitas^{2,3}, Lincoln^{3,12}, Yakima^{2,3,12}. Seasonality: Apr^{1,2,3,12}, Jun^{1,2} (1989^{2,3}). Collections: INHS, NMNH. Holotype. USA, Washington, King County, Seattle; 5 April 1896; T Kincaid; Type No. 18922, USNM ENT 00533728
- **108.** Andrena (Trachandrena) sigmundi Cockerell, 1902. County records: Kitsap^{2,3}, Thurston¹³³, Whitman^{3,12}. Seasonality: Apr^{2,3}, May¹³³ (2019¹³³). Collections: INHS. Floral records: ASPARAGACEAE: Camassia quamash¹³³
- **109.** *Andrena* (*Trachandrena*) *striatifrons* Cockerell, **1897**. County records: Benton⁷, King^{3,12}, Kittitas^{2,3}, Pacific^{3,12}, Pierce^{3,12}, Thurston^{1,2,3,12}, Whitman^{1,2,3,7,12}, Yakima^{2,3,7,12}. Seasonality: Apr^{1,2,3,7,12}, May⁷, Jun^{3,7} (1989^{2,3}). Collections: INHS, NMNH, WSUC. **Holotype**. USA, Washington, Thurston County, Olympia; 19 April 1894; T Kincaid; Type No. 18945, USNM ENT 533735. [= *Trachandrena pernuda* Viereck, 1904]. **Holotype**. USA, Washington, Whitman County, Pullman; CV Piper.

Panurginae: Calliopsini

Genus Calliopsis Smith

- **110.** *Calliopsis* (*Nomadopsis*) *edwardsii* Cresson, 1878. County records: Klickitat^{1,2}, Spokane³. Seasonality: Jul^{1,2,3}, Aug^{1,2}, Sep^{1,2} (2011^{1,2}). Collections: BBSL, UCRC
- **111.** *Calliopsis* (*Nomadopsis*) *personata* Cockerell, **1897**. County records: Adams³, Benton^{1,2,3}, Franklin^{1,2,118,123}, Walla Walla^{1,2,3}. Seasonality: May^{1,2,3,118,123}, Jun^{1,2,3}, Jul^{1,2,3} (1995^{1,2,3}). Collections: AMNH, BBSL, NMNH, UCRC. Holotype. USA, Washington, Franklin County, Pasco; 25 May 1896; Type No. 18985, USNM ENT 00533826.
- 112. †‡ *Calliopsis* (*Nomadopsis*) *scutellaris* Fowler, 1899. County records: Adams³. Seasonality: Jul³ (1920³). Collections: UCRC
- 113. ‡ *Calliopsis* (*Nomadopsis*) *xenus* (Rozen, 1958). County records: Pierce¹²³ (Yakima^{1,2,3}). Seasonality: Jul^{1,2,3,123} (1949^{1,2,3,123}). Collections: SEMC. **Paratype**. USA, Washington, Chinook Pass; 29 July 1949; RH Beamer. Floral records: BORAGINACEAE: *Mertensia paniculata*^{1,2}; HYDROPHYLLACEAE: *Phacelia hastata* var. *hastata*^{1,2}. Comments: The paratype label describes the locality as only Chinook Pass, Wash., which is located on the Pierce and Yakima County line. Rozen (1958) reports the paratype as being collected in Pierce County. Discover Life and GBIF report the paratype as being collected in Yakima County. It is unclear which county is correct, so both counties are being presented here with preference given to Rozen (1958).

Panurgini

Genus Panurginus Nylander

- **114.** *Panurginus atriceps* (Cresson, 1878). County records: Clark^{1,2}, Cowlitz^{1,2,3}, King^{34,118}, Skagit^{1,2,3}, Thurston⁸⁷, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: May^{1,2,118}, Jun^{1,2,3,118}, Jul^{1,2,3,118}, Aug^{1,2,3} (2014³). Collections: BBSL, JRYA, NMNH, PWRC, SEMC. Floral records: ROSACEAE: *Rubus ursinus*¹¹⁸
- **115.** *Panurginus ineptus* Cockerell, **1922**. County records: Clallam³, Pierce^{1,2,3,48}, Skagit³. Seasonality: Jul^{1,2,3,48}, Aug^{1,2,3} (2014³). Collections: AMNH, BBSL, JRYA, OSUC
- 116. † *Panurginus nigrellus* Crawford, 1926. County records: Klickitat⁷. Seasonality: Jun⁷ (1975⁷). Collections: WSUC

Perditini

Genus Perdita Smith

- **117.** *Perdita* (*Cockerellia*) *albipennis* Cresson, **1868**. Comments: Viereck et al. (1905) indicate that *P. albipennis* is present in Washington, but do not provide a locality.
- **118.** *Perdita* (*Cockerellia*) *lingualis* Cockerell, **1896**. County records: Whitman^{1,2,3,8}. Seasonality: Sep^{1,2,3} (1982^{1,2,3}). Collections: BBSL, WSUC. Floral records: ASTERACEAE: *Helianthus annuus*⁸; GERANIACEAE: *Geranium viscosissimum*⁸; ROSACEAE: *Rosa*⁸
- 119. ‡ *Perdita (Perdita) ciliata* Timberlake, 1958. County records: Chelan^{2,67,112}. Seasonality: Aug^{2,67} (1941^{2,67,112}). Collections: LACM. [= *Perdita crassihirta* Timberlake, 1968]. **Holotype**. USA, Washington, Chelan County, Wenatchee; 21 August 1941; J Roberds; LACM ENT 164669. Conservation status: Data Deficient (National Research Council 2007)
- **120.** *Perdita* (*Perdita*) *oregonensis* Timberlake, **1929**. County records: Benton⁷, Franklin⁶⁶. Seasonality: Sep⁶⁶, Oct⁷ (1994⁷). Collections: WSUC
- **121.** *Perdita* (*Perdita*) *salicis imperialis* Cockerell, 1925. County records: Asotin⁸⁹, Benton⁷, Spokane⁸⁹, Walla Walla⁸⁹, Whitman⁸⁹. Seasonality: May^{7,89}, Jun⁸⁹, Jul⁸⁹ (1994⁷). Collections: WSUC
- **122.** \$‡ *Perdita* (*Perdita*) *similis pascoensis* Timberlake, 1958. County records: Franklin^{1,2,3,66,112}. Seasonality: Sep^{1,2,3,66} (1904^{1,2,3,66}). Collections: NMNH. **Holotype**. USA, Washington, Franklin County, Pasco; 11 September 1904; ESG Titus; Type No. 64325, USNM ENT 00532871. Conservation status: Vulnerable (National Research Council 2007)
- **123.** † *Perdita* (*Perdita*) *zonalis* Cresson, 1879. County records: Whitman^{1,2,3}. Seasonality: Sep^{1,2,3} (1982^{1,2,3})
- **124.** ‡ *Perdita (Pygoperdita) nevadensis nevadensis* Cockerell, 1896. County records: Chelan^{1,2,3,88}, **Spokane**^{1,2,3}. Seasonality: Jul^{1,2,3,88} (1949^{1,2,88}). Collections: BBSL, INHS, SEMC, UCRC

- **125.** *Perdita* (*Pygoperdita*) *wyomingensis* Cockerell, **1922**. County records: Whitman³. Seasonality: Jun³ (1962³). Collections: UCRC
- 125a. § *Perdita* (*Pygoperdita*) *wyomingensis sculleni* Timberlake, 1956. County records: Whitman^{8,88}, Yakima⁶. Seasonality: Jun⁸⁸, Jul^{6,88} (2022⁶). Collections: WSDA, WSUC. Conservation status: Vulnerable (National Research Council 2007). Floral records: ASTERACEAE: *Achillea millefolium*⁸; ROSACEAE: *Holodiscus discolor*⁸
- **125b.** † *Perdita (Pygoperdita) wyomingensis segona* Timberlake, **1956**. County records: **Benton**^{1,2}, **Spokane**^{1,2}. Seasonality: May^{1,2}, Jun^{1,2}, Jul^{1,2} (2015^{1,2}). Collections: BBSL

Apidae: Anthophorinae: Anthophorini

Genus Anthophora Latreille

- **126.** *Anthophora* (*Clisodon*) *terminalis* Cresson, 1869. County records: Benton^{1,2}, Okanogan^{1,2,3}, Pierce^{1,2,3,6}, San Juan^{1,2,3,124,136}, Spokane^{1,2}, Thurston^{1,2,118}, Whatcom⁶, Whitman^{1,2,3}. Seasonality: Jun^{1,2,3}, Jul^{1,2,3,6,118}, Aug⁶ (2021^{1,2}). Collections: BBSL, iNaturalist, NMNH, PWRC, SEMC, WSDA. [= *Podalirius syringae* Cockerell, 1898]. Holotype. USA, Washington, Thurston County, Olympia; 2 July 1896; Type No. 20234, USNM ENT 00534169. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: CONVOLVULACEAE: *Calystegia soldanella*¹³⁶
- **127.** *Anthophora* (*Lophanthophora*) *affabilis* Cresson, 1878. County records: Whitman³². Seasonality: Jun³² (2013³²). Conservation status: G5 Secure globally (NatureServe 2024)
- **128.** †\$ *Anthophora* (*Lophanthophora*) *neglecta* Timberlake and Cockerell, 1936. County records: Benton^{1,2,3}. Seasonality: Apr^{1,2,3} (1995^{1,2,3}). Collections: BBSL. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **129.** Anthophora (Lophanthophora) pacifica Cresson, 1878. County records: Benton^{1,2,3}, Chelan^{1,2,3}, King^{1,2}, Kittitas^{2,3}, Okanogan^{1,2,3}, Spokane^{1,2}, Whitman^{1,2,3,8,61}, Yakima^{1,2,3,121}. Seasonality: Feb^{1,2}, Mar^{1,2}, Apr^{1,2,3,61}, May^{1,2,3,121} (2022^{1,2}). Collections: BBSL, iNaturalist, INHS, SEMC, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: API-ACEAE: Lomatium⁸; ASTERACEAE: Balsamorhiza sagittata⁸; FABACEAE: Astragalus columbianus³, A. sinuatus³; GROSSULARIACEAE: Ribes³, R. aureum⁸; LAMIACEAE: Salvia dorrii³; OLEACEAE; Syringa⁸; ROSACEAE: Malus domestica⁸, Prunus armeniaca⁸
- **130.** *Anthophora* (*Lophanthophora*) *porterae* Cockerell, **1900**. County records: Benton^{1,2,3}, Chelan¹³⁶, Garfield^{1,2,3,46}, Walla Walla^{1,2}, Whitman^{1,2}, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3} (2012^{1,2}). Collections: BBSL, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: *Astragalus*³, *A. columbianus*³, *A. speirocarpus*³

- **131.** *Anthophora* (*Lophanthophora*) *ursina* Cresson, 1869. County records: Adams³, Garfield^{1,2,3,46}, Okanogan^{1,2,3,59}, Spokane^{1,2}, Walla Walla^{1,2,3}, Whitman^{1,2,8}, Yakima^{2,121}. Seasonality: Mar^{1,2}, Apr^{1,2,3}, May^{1,2,3,121}, Jun^{1,2,3}, Jul^{1,2} (2015^{1,2}). Collections: BBSL, SEMC, UCRC, WSUC. [= *Anthophora simillima* Cresson, 1879]. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: *Astragalus*³, *Vicia villosa*⁸; ROSACEAE: *Rosa nutkana* ssp. *nutkana*^{3,59}
- 132. Anthophora (Melea) bomboides Kirby, 1837. County records: Chelan^{1,2,3}, Clallam^{1,2}, Garfield^{1,2,3,46}, Island^{2,3,106}, Jefferson^{1,2}, King^{1,2,106}, Kittitas^{1,2}, Pierce^{1,2,6}, San Juan^{1,2,3,5,6,22,106,136}, Spokane^{1,2}, Thurston^{1,2,106}, Walla Walla^{1,2}, Whatcom^{2,106}, Whitman^{8,106}, Yakima^{1,2,3,121}. Seasonality: Apr^{1,2}, May^{1,2,3,121}, Jun^{1,2,3,5,6}, Jul^{1,2,6}, Aug^{2,3,6} (2020^{1,2,6}). Collections: BBSL, iNaturalist, PMNH, PWRC, SEMC, UCRC, WSDA, WSUC. [= Anthophora sodalis Cresson, 1879]. [= Anthophora bomboides solitaria Ritsema, 1880]. [= Anthophora bomboides stanfordiana Cockerell, 1904]. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASPARAGACEAE: Brodiaea coronaria⁵; ASTERACEAE: Balsamorhiza³; BRASSICACEAE: Cakile maritima¹³⁶; CAPRIFOLIACEAE: Symphoricarpos albus¹³⁶; CONVOLVULACEAE: Calystegia soldanella¹³⁶; FABACEAE: Astragalus podolobus³; ROSACEAE: Rosa nutkana¹³⁶, Rubus bifrons¹³⁶
- **133.** § *Anthophora* (*Melea*) *occidentalis* Cresson, **1869**. County records: Chelan^{1,2}, King^{1,2}, Whitman^{1,2}, Yakima^{1,2,106}. Seasonality: Apr², May^{1,2}, Jun^{1,2}, Jul^{1,2} (1982^{1,2}). Collections: SEMC. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **134.** *Anthophora* (*Micranthophora*) *albata* Cresson, **1876**. County records: Benton^{1,2,107}, Chelan¹⁰⁷, **Douglas**^{2,3}. Seasonality: Jun^{1,2,107}, Aug^{2,107} (1995^{1,2,107}). Collections: BBSL, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **135.** † *Anthophora* (*Micranthophora*) *curta* Provancher, 1895. County records: Walla Walla^{1,2,107}. Seasonality: Jun^{1,2,107}, Jul¹⁰⁷ (2012^{1,2,107}). Collections: BBSL. Conservation status: G5 Secure globally (NatureServe 2024)
- **136.** ‡ *Anthophora* (*Micranthophora*) *exigua* Cresson, 1879. County records: Adams⁷, Grant⁷, Kittitas^{1,107}. Seasonality: Jun⁷, Jul^{1,107}, Sep⁷, Aug⁷ (1949^{1,107}). Collections: SEMC, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **137.** † *Anthophora* (*Micranthophora*) *peritomae* Cockerell, 1905. County records: Benton⁷. Seasonality: Aug⁷ (1994⁷). Collections: WSUC
- 138. Anthophora (Mystacanthophora) urbana Cresson, 1878. County records: Benton^{1,2,3,71}, Chelan^{1,2}, Douglas^{1,2}, Grant^{1,2}, Jefferson^{1,2}, Kittitas^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, Walla Walla^{1,2,3,71}, Whitman^{2,3}, Yakima¹²¹. Seasonality: Jun^{1,2,3,121}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2}, Oct^{1,2} (2021^{1,2}). Collections: BBSL, iNaturalist, SEMC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: HYDROPHYLLACEAE: Phacelia hastata³; PLANTAGINACEAE: Penstemon washingtonensis^{3,59}

- **139.** *§ Anthophora (Pyganthophora) crotchii* Cresson, 1878. County records: Adams^{1,2,3}, Benton^{1,2}, Franklin^{1,2,3,118}, Grant^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3}, Yakima^{2,121}. Seasonality: Mar^{1,2}, Apr^{1,2,3,121}, May^{1,2,3,118,121}, Jun^{1,2,3} (2022^{1,2}). Collections: AMNH, BBSL, iNaturalist, SEMC, UCRC. [= *Anthophora washingtoni* Cockerell, 1905]. **Holotype**. USA, Washington, Franklin County, Pasco; 25 May 1896; T Kincaid. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **140.** ‡ *Anthophora* (*Pyganthophora*) *edwardsii* Cresson, 1878. County records: **Douglas**³, Garfield⁴⁶, **Walla Walla**^{1,2,3}, **Whitman**^{1,2,3}, Yakima^{1,2,3,121}. Seasonality: Apr^{1,2,121}, May^{1,2,3,121}, Jun^{1,2} (1937^{1,2}). Collections: SEMC, UCRC. Conservation status: G4 Apparently Secure Globally (NatureServe 2024)

Genus Habropoda Smith

- **141.** *Habropoda cineraria* (Smith, 1879). County records: Adams², Asotin², Benton^{1,2,3}, Chelan^{1,2,3}, Franklin^{1,2}, King¹, Kittitas^{2,3}, Spokane^{1,2}, Whitman^{1,2,3,8}, Yakima^{1,2,3,121}. Seasonality: Mar^{1,2}, Apr^{1,2,3,121}, May^{1,2,3} (2015^{1,2}). Collections: BBSL, INHS, SEMC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: GROSSULARIACEAE: *Ribes*³, *R. aureum*⁸; LAMIACEAE; *Salvia dorrii*³; ROSACEAE: *Malus domestica*⁸, *Prunus armeniaca*⁸, *Rosa*⁸
- **142.** † *Habropoda cressonii* (Dalla Torre, 1896). County records: Whitman². Seasonality: Apr² (1973²). Collections: SEMC
- **143.** †\$ *Habropoda miserabilis* (Cresson, 1878). County records: Jefferson^{1,2}, King^{1,2}, Okanogan^{1,2,3}, Pacific^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3} (2022^{1,2}). Collections: BBSL, iNaturalist, SEMC. Conservation status: G2 Imperiled globally (NatureServe 2024)
- **144.** *Habropoda morrisoni* (Cresson, 1878). County records: Benton^{1,2,3}, Franklin^{1,2,118}. Seasonality: Apr^{1,2,3}, May^{1,2} (1995^{1,2}). Collections: BBSL, NMNH, SEMC. [= *Emphoropsis floridana* var. *pascoensis* Cockerell, 1878]. [= *Habropoda floridana* var. *pascoensis* Cockerell, 1878]. Holotype. USA, Washington, Franklin County, Pasco; 25 May 1896; Type No. 58047, USNM ENT 00534175. Conservation status: G4 Apparently Secure globally (NatureServe 2024)

Apinae: Apini

Genus Apis Linnaeus

145. * Apis mellifera Linnaeus, 1758. County records: Adams^{1,2}, Asotin^{1,2,3}, Benton^{1,2,3,6,71}, Chelan^{1,2,3}, Clallam^{1,2,3,6}, Clark^{1,2,3}, Columbia^{1,2}, Cowlitz^{1,2,3}, Douglas^{1,2}, Franklin^{1,2,6}, Garfield^{1,2,46}, Grant^{1,2,3,6}, Grays Harbor^{1,2,6}, Island^{1,2}, Jefferson^{1,2,6}, King^{1,2,3,6}, Kitsap^{1,2,6}, Kittitas^{1,2}, Klickitat^{1,2,3}, Lewis^{1,2,3}, Lincoln^{1,2}, Mason^{1,2,3}, Okanogan^{1,2,3}, Pacific^{1,2,3,6}, Pierce^{1,2,3,6}, San Juan^{1,2,3,5,6,124}, Skagit^{1,2,3,6,10}, Skamania^{1,2,3}, Snohomish^{1,2,3,6}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3,6,130,133}, Wahkiakum^{1,2,3}, Walla Walla^{1,2,3,6,71}, Whatcom^{1,2,3,6,33}, Whitman^{1,2,3}, Yakima^{1,2,3,6}.

Seasonality: Jan^{1,2}, Feb^{1,2}, Mar^{1,2,3}, Apr^{1,2,3}, May^{1,2,3,5,6,133}, Jun^{1,2,3,5,6,133}, Jul^{1,2,3,6,133}, Aug^{1,2,3,6,33}, Sep^{1,2,3,6}, Oct^{1,2,3,6}, Nov^{1,2,6} (2022^{1,2,6}). Collections: BBSL, EMEC, FMNH iNaturalist, JRYA, NMNH, OSUC, PWRC, SEMC, UNM, WSDA. Floral records: APIACEAE: *Heracleum sphondylium* ssp. *Montanum*⁵; APOC-YNACEAE: *Apocynum androsaemifolium*¹³³; ASPARAGACEAE: *Camassia quamash*¹³³, *Triteleia hyacinthina*¹³³; ASTERACEAE: *Balsamorhiza deltoidea*¹³³, *Crepis capillaris*¹³³, *Cirsium arvense*¹³³, *Eriophyllum lanatum*¹³³, *Hypochaeris radicata*¹³³, *Leucanthemum vulgare*¹³³, *Solidago simplex*¹³³; CAPRIFOLIACEAE: *Plectritis congesta*¹³³, *Symphoricarpos albus*^{5,133}; ERICACEAE: *Arctostaphylos uva-ursi*¹³³; FABACEAE: *Lupinus albicaulis*¹³³, *L. bicolor*¹³³, *L. lepidus*¹³³, *Trifolium repens*¹³³, *Vicia hirsuta*¹³³, *V. sativa*¹³³; HYPERICACEAE: *Hypericum perforatum*¹³³; LAMI-ACEAE: *Salvia dorrii*³; PLANTAGINACEAE: *Collinsia grandiflora*¹³³; PLUM-BAGINACEAE: *Armeria maritima*¹³³; POLEMONIACEAE: *Gilia capitata*¹³³. Comments: Due to its ubiquitous use in commercial agriculture, it is assumed that *A. mellifera* occurs in Ferry and Pend Oreille counties as well.

Bombini

Genus Bombus Latreille

- **146.** †\$ *Bombus* (*Alpinobombus*) *kirbiellus* Curtis, **1835**. County records: Okanogan^{1,2,3}. Seasonality: Aug^{1,2,3} (2019^{1,2,3}). Collections: BOMBUS, iNaturalist, NMNH. Conservation status: Data Deficient (Hatfield et al. 2016a); G4 Apparently Secure globally, S1 Critically Imperiled in Washington (NatureServe 2024)
- 147. Bombus (Bombias) nevadensis Cresson, 1874. County records: Adams^{1,2}, Asotin^{1,2,3}, Benton^{1,2,3}, Chelan^{1,2,3}, Clark^{1,2}, Columbia^{1,2}, Douglas^{1,2}, Ferry^{1,2}, Franklin^{1,2}, Garfield^{1,2,3,46}, Grant^{1,2,3}, Island^{1,2,3}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2}, Klickitat^{1,2,3}, Lincoln^{1,2}, Okanogan^{1,2}, Pend Oreille^{1,2}, Pierce^{1,2}, San Juan^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3,8}, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2,3}, Oct^{1,2} (2021^{1,2}). Collections: AMNH, BBSL, BOMBUS, CNC, EMEC, iNaturalist, INHS, NMNH, PMNH, UCRC, WSUC. Conservation status: Least Concern (Hatfield et al. 2015a); G4 Apparently Secure globally, S4 Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Triteleia grandiflora⁸; ASTERACEAE: Balsamorhiza sagittata⁸, Cirsium vulgare⁸, Solidago⁸; DIPSACACEAE: Dipsacus fullonum⁸; FABACEAE: Astragulus⁸, Medicago sativa⁸, Trifolium pratense³, T. repens⁸, Vicia villosa⁸; HYDROPHYLLACEAE: Phacelia⁸; LAMIACEAE: Agastache urticifolia⁸; PLANTAGINACEAE: Penstemon⁸; ROSACEAE: Malus domestica⁸
- 148. \$ Bombus (Bombus) occidentalis Greene, 1858. County records: Asotin^{1,2,3}, Benton^{1,2,3}, Chelan^{1,2,3}, Clallam^{1,2,3,124}, Columbia^{1,2,3}, Cowlitz^{1,3}, Douglas^{1,2}, Ferry^{1,2,3}, Franklin^{1,2}, Garfield^{1,2,3,46}, Grant^{1,2,3}, Grays Harbor^{1,2,3}, Island^{1,2,3,6}, Jefferson^{1,2,3,124}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,3}, Lewis^{1,2,3},

- Lincoln^{1,2,3}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3}, Pend Oreille^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3}, Skagit^{1,2,3}, Skamania^{1,2,3}, Snohomish^{1,2,3,6}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3,130}, Wahkiakum^{1,2,3}, Walla Walla^{1,2,3}, Whatcom^{1,2,3,6}, Whitman^{1,2,3,8}, **Yakima**^{1,2,3}. Seasonality: Jan², Feb^{1,2}, Mar^{1,2}, Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3,6}, Aug^{1,2,3,6}, Sep^{1,2,3}, Oct^{1,2}, Dec^{1,2} (2021^{1,2,6}). Collections: AMNH, BBSL, BOMBUS, CNC, CSCA, EMEC, FMNH, iNaturalist, INHS, JRYA, LACM, NMNH, PMNH, SEMC, TAMU, UCMC, UCRC, WSDA, WSUC. Conservation status: Vulnerable (National Research Council 2007; Hatfield et al. 2015b); G3 - Vulnerable globally, S2 - Imperiled in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Triteleia grandiflora8; ASTERACEAE: Arnica cordifolia⁵⁹, Balsamorhiza sagittata⁸, Cirsium vulgare⁸, Erigeron speciosus⁵⁹; FABACEAE: Lupinus polyphyllus8; Medicago sativa8, Trifolium repens8, Vicia villosa8; HYDROPHYLLACEAE: Phacelia8; IRIDACEAE: Sisyrinchium8; ONA-GRACEAE: Chamerion angustifolium ssp. Angustifolium⁸; PLANTAGINACE-AE: Penstemon⁸; RANUNCULACEAE: Aconitum columbianum⁸; ROSACEAE: Malus domestica⁸, Rosa⁸, Rubus parviflorus⁸
- **149.** Bombus (Cullumanobombus) griseocollis (DeGeer, 1773). County records: Adams^{1,2}, Asotin^{1,2}, Benton^{1,2,3}, Chelan^{1,2,3}, Clark^{1,2,3,124}, Douglas^{1,2}, Franklin^{1,2,3}, Garfield^{1,2,46}, Grant^{1,2,3}, Kittitas^{1,2}, Klickitat^{1,2}, Lincoln^{1,2}, Okanogan^{1,2,3}, Pierce³, Spokane^{1,2,3}, Thurston¹³⁰, Walla Walla^{1,2,3,71}, Whitman^{1,2,3,6,8}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, Apr^{1,2,3}, May^{1,2,3,6}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2,3}, Oct^{1,2} (2022^{1,2}). Collections: BBSL, BOMBUS, BugGuide, EMEC, iNaturalist, INHS, LACM, NMNH, UCDC, UCRC, WSDA, WSUC. Conservation status: Least Concern (Hatfield et al. 2015d); G5 Secure globally, S5 Secure in Washington (NatureServe 2024). Floral records: ASTERACEAE: Balsamorhiza sagittata⁸, Helianthus annuus⁸, Solidago⁸; FABACEAE: Lupinus polyphyllus⁸, Medicago sativa⁸, Vicia villosa⁸; HYDROPHYLLACEAE: Phacelia⁸; IRIDACEAE: Sisyrinchium⁸; ONAGRACEAE: Chamerion angustifolium ssp. Angustifolium⁸; PLANTAGINACEAE: Penstemon⁸; ROSACEAE: Rosa⁸
- 150. § Bombus (Cullumanobombus) morrisoni Cresson, 1878. County records: Adams^{1,2}, Asotin^{2,3}, Benton^{1,2}, Chelan^{1,2,3}, Franklin^{1,2}, Grant^{1,2,3}, Grays Harbor^{1,2}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Okanogan^{1,2,3,59}, Pierce^{1,2,3}, Spokane^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3}, Yakima^{1,2}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2,3}, Sep¹, Oct¹ (2021^{1,2}). Collections: AMNH, BBSL, iNaturalist, INHS, NMNH, UCMC. Conservation status: Vulnerable (Hatfield et al. 2014a); G3 Vulnerable globally, S4 Apparently Secure in Washington (NatureServe 2024). Floral records: FABACEAE: Trifolium pratense³; PLANTAGINACEAE: Penstemon washingtonensis⁵⁹
- 151. Bombus (Cullumanobombus) rufocinctus Cresson, 1863. County records: Asotin^{1,2,3}, Benton^{1,2,3}, Chelan^{1,2,3}, Clallam^{1,2,3}, Clark^{1,2,3}, Columbia^{1,2,3}, Douglas^{1,2}, Ferry^{1,2,3}, Garfield^{1,2,3}, Island¹²⁴, Jefferson^{1,2}, Kittitas^{1,2,3}, Klickitat^{1,2}, Lewis^{1,2,4}, Lincoln^{1,2,3}, Mason^{1,2}, Okanogan^{1,2,3,5,9}, Pend Oreille^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3,5,124}, Skamania^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston¹³³, Walla Walla^{1,2},

- Whatcom^{1,2,3}, Whitman^{1,2,3,6,8}, Yakima^{1,2}. Seasonality: May^{1,2,3,4,5,133}, Jun^{1,2,3,5,133}, Jul^{1,2,3,5,6}, Aug^{1,2,3,5}, Sep^{1,2,3}, Oct^{1,2,3} (2021^{1,2}). Collections: BBSL, BOMBUS, Bug-Guide, EMEC, FMNH, iNaturalist, INHS, JRYA, LACM, PCYU, PMNH, PWRC, SEMC, UCRC, WSDA, WSUC. Conservation status: Least Concern (Hatfield et al. 2015e); G5 Secure globally, S4 Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Triteleia grandiflora⁸; ASTERACEAE: Cirsium arvense³, Erigeron speciosus^{3,59}, Eriophyllum lanatum¹³³, Crepis capillaris⁵, Jacobaea vulgaris⁵, Solidago simplex¹³³; GERANIACEAE: Geranium viscosissimum⁸; HYDROPHYLLACEAE: Phacelia^{3,5,8}, P. hastata³; IRI-DACEAE: Sisyrinchium⁸; ONAGRACEAE: Chamerion angustifolium ssp. Angustifolium⁸; ROSACEAE: Rosa nutkana⁵, Rubus ulmifolius⁵, R. ursinus⁵
- 152. § Bombus (Psithyrus) flavidus Eversmann, 1852. County records: Chelan^{1,2,3}, Clallam^{1,2,3}, Columbia^{1,2}, Grays Harbor^{1,2,3}, Island^{2,3}, Jefferson^{1,2,3}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2}, Mason^{1,2}, Okanogan^{1,2,3,59}, Pacific^{1,2}, Pend Oreille^{1,2}, Pierce^{1,2,3}, San Juan^{1,2,3,124}, Skagit^{1,2,3}, Skamania^{1,2,3}, Snohomish^{1,2}, Thurston^{1,2}, Whatcom^{1,2,3,4}, Whitman^{1,2,3}, Yakima^{1,2}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3,4}, Aug^{1,2,3}, Sep^{1,2,3}, Oct^{1,2} (2021^{1,2}). Collections: BBSL, BugGuide, CNC, LACM, NMNH, PMNH, PWRC, SEMC, TAMU, UCRC, WSDA. [= Bombus fernaldae (Franklin, 1911)]. [= Psithyrus tricolor Franklin, 1911]. Conservation status: Data Deficient (Hatfield et al. 2016d); G5 Secure Globally, S3 Vulnerable in Washington (NatureServe 2024). Floral records: ASTERACEAE: Centaurea³, Cirsium³; BRASSICACEAE: Smelowskia calycina^{3,59}
- 153. § Bombus (Psithyrus) insularis (Smith, 1861). County records: Asotin^{1,2,3}, Chelan^{1,2,3}, Clallam^{1,2}, Clark^{1,2}, Columbia^{1,2,3}, Ferry^{1,2}, Garfield^{1,2,3}, Grays Harbor^{1,2,3}, Jefferson^{1,2,3}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lewis^{1,2}, Lincoln^{1,2,3}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pend Oreille^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Whatcom^{1,2,3}, Whitman^{1,2,3,8}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, Mar^{1,2}, Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2,3}, Oct^{1,2} (2020^{1,2}). Collections: AMNH, BBSL, BOMBUS, CNC, EMEC, iNaturalist, INHS, JRYA, LACM, NMNH, NMSU, OSUC, PMNH, SEMC, UCRC, WSUC. Conservation status: Least Concern (Hatfield et al. 2014b); G3 – Vulnerable globally, S5 – Secure in Washington (NatureServe 2024). Floral records: ASTERACEAE: Achillea millefolium⁵⁹, Agoseris glauca var. dasycephala⁵⁹, Anaphalis margaritacea⁵⁹, Cirsium arvense³, C. hookerianum⁵⁹, C. vulgare⁵⁹, Erigeron speciosus⁵⁹, Microseris nutans⁵⁹, Senecio triangularis⁵⁹, Taraxacum officinale^{3,59}; BRAS-SICACEAE: Smelowskia calycina⁵⁹; CRASSULACEAE: Sedum lanceolatum⁵⁹; DIPSACACEAE: Dipsacus fullonum⁸; FABACEAE: Melilotus albus⁵⁹, Trifolium repens³, Vicia³; LAMIACEAE: Agastache urticifolia³; ONAGRACEAE: Chamerion angustifolium ssp. Angustifolium⁸, Epilobium³; PLANTAGINACEAE: Penstemon confertus⁵⁹, P. washingtonensis⁵⁹
- 154. †\$ Bombus (Psithyrus) suckleyi Greene, 1860. County records: Chelan^{1,2}, Clallam^{1,2}, Columbia^{1,2}, Douglas^{1,2}, Ferry^{1,2}, Jefferson^{1,2,3}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2}, Lewis^{1,2,3}, Mason^{1,2,3}, Pend Oreille^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3}, Skamania^{1,2},

- Snohomish^{1,2}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3}, Walla Walla^{1,2}, Whitman^{1,2,3}, Yakima^{1,2}. Seasonality: Jan¹, Apr¹, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2,3} (1998^{1,2}). Collections: AMNH, BBSL, CNC, EMEC, FMNH, INHS, LACM, NMNH, PMNH, SEMC, UCRC, WSUC. Conservation status: Critically Endangered (Hatfield et al. 2015f); G2 Imperiled globally, S1 Critically Imperiled in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: *Triteleia grandiflora*⁸; ASTERACEAE: *Senecio*⁸; IRIDACEAE: *Sisyrinchium*⁸; LAMIACEAE: *Agastache urticifolia*⁸; ONAGRACEAE: *Chamerion angustifolium* ssp. *Angustifolium*⁸
- 155. § Bombus (Pyrobombus) caliginosus (Frison, 1927). County records: Clallam^{1,2,3,124}, Clark^{1,2}, Cowlitz^{1,2,3}, Grays Harbor^{1,2,3,6,70}, Jefferson^{1,2,3}, King^{2,3}, Kitsap^{1,2,3}, Lewis^{1,2,3}, Mason^{1,2,3}, Pacific^{1,2,3,6}, Pierce^{1,2,3}, San Juan^{2,3}, Skamania^{1,2,3}, Thurston^{1,2,3,6,133}, Whatcom^{1,2,3}. Seasonality: May^{1,2,133}, Jun^{1,2,133}, Jul^{1,2,3,6}, Aug^{1,2,3,6}, Sep⁶ (2021⁶). Collections: BBSL, BOMBUS, EMEC, iNaturalist, INHS, JRYA, LACM, NMNH, PMNH, SEMC, WSDA. Conservation status: Vulnerable (Hatfield et al. 2014c); G2 Imperiled globally, S3 Vulnerable in Washington (NatureServe 2024). Floral records: ASTERACEAE: Microseris laciniata¹³³; CAPRIFOLIACEAE: Symphoricarpos albus¹³³; FABACEAE: Lathyrus odoratus³, Lupinus albicaulis¹³³; LAMIACEAE: Prunella vulgaris¹³³
- 156. Bombus (Pyrobombus) centralis Cresson, 1864. County records: Adams 1,2,3, Asotin^{1,2,3}, Benton^{1,2,3}, Chelan^{1,2,3}, Columbia^{1,2}, Douglas^{1,2}, Ferry^{1,2,3}, Garfield^{1,2,3,46}, Grant^{1,2,3}, King^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lincoln^{1,2}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pend Oreille^{1,2}, San Juan^{1,2,3}, Skagit^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3,6,8}, Yakima^{1,2,3}. Seasonality: Mar^{1,2,3}, Apr^{1,2,3}, May^{1,2,3}, Jun^{1,2,3,6}, Jul^{1,2,3}, Aug^{1,2}, Sep^{1,2}, Oct^{1,2}, Nov^{1,2} (2022^{1,2}). Collections: AMNH, BBSL, BOMBUS, EMEC, iNaturalist, INHS, NMNH, PMNH, PWRC, SEMC, UCRC, WSDA, WSUC. Conservation status: Least Concern (Hatfield et al. 2014d); G5 – Secure globally, S4 – Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Triteleia grandiflora8; ASTERACEAE: Anaphalis margaritacea⁸, Balsamorhiza sagittata⁸, Erigeron speciosus⁵⁹, Rudbeckia occidentalis⁸; BORAGINACEAE: Mertensia paniculata⁸; CAPRI-FOLIACEAE: Lonicera3, Symphoricarpos albus3; DIPSACACEAE: Dipsacus fullonum⁸; FABACEAE: Astragalus sinuatus³, Lupinus polyphyllus⁸, L. sericeus^{3,59}, Trifolium repens⁸, Vicia villosa⁸; GERANIACEAE: Geranium viscosissimum⁸; HY-DROPHYLLACEAE: Phacelia hastata³, P. leptosepala⁵⁹; IRIDACEAE: Sisyrinchium⁸; LAMIACEAE: Agastache urticifolia⁸; ONAGRACEAE: Chamerion angustifolium ssp. angustifolium⁸, Clarkia pulchella³, Epilobium³; OROBANCHACEAE: Orthocarpus tenuifolius^{3,59}; PLANTAGINACEAE: Collinsia parviflora⁸, Penstemon⁸, P. confertus^{3,59}, P. washingtonensis⁵⁹; ROSACEAE: Malus domestica⁸, Rosa⁸, R. nutkana ssp. nutkana⁵⁹, Rubus parviflorus⁸
- 157. Bombus (Pyrobombus) flavifrons Cresson, 1864. County records: Asotin^{1,2,3}, Chelan^{1,2,3,124}, Clallam^{1,2,3,47,124}, Clark^{1,2,3}, Columbia^{1,2,3}, Cowlitz^{1,2}, Ferry^{1,2}, Garfield^{1,2}, Grays Harbor^{1,2,3,6,70}, Island^{1,2,3,124}, Jefferson^{1,2,3,47,124}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2}, Lewis^{1,2,3,47}, Lincoln^{1,2}, Mason^{1,2,3}, Okanogan^{1,2,3,59},

Pacific^{1,2}, Pend Oreille^{1,2}, Pierce^{1,2,3,47}, San Juan^{1,2,3,5,6,47,124,136}, Skagit^{1,2,3,6,10,47,70,124}, Skamania^{1,2,3}, Snohomish^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3,6,130,133}, Wahkiakum^{1,2}, Walla Walla^{1,2,3}, Whatcom^{1,2,3,6,47,124}, Whitman^{1,2,3,8}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, Feb^{1,2}, Mar^{1,2}, Apr^{1,2,3,5}, May^{1,2,3,5,133}, Jun^{1,2,3,6,133}, Jul^{1,2,3,5,6,47,133}, Aug^{1,2,3,6,47}, Sep^{1,2,3}, Nov^{1,2} (2022^{1,2}). Collections: AMNH, BBSL, BOMBUS, CNC, EMEC, iNaturalist, INHS, JRYA, LACM, NMNH, OSUC, PMNH, PWRC, SEMC, UCRC, WSDA, WSUC. Conservation status: Least Concern (Hatfield et al. 2015g); G5 – Secure globally, S5 – Secure in Washington (NatureServe 2024). Floral records: ASTERACEAE: Balsamorhiza deltoidea¹³³, Cirsium arvense^{8,133}, Erigeron speciosus⁵⁹, Eriophyllum lanatum¹³³, Helianthus annuus⁸, Microseris nutans⁵⁹, Solidago simplex¹³³, Taraxacum officinale^{5,136}; BORAGINACEAE: Mertensia³; CAMPANULACEAE: Campanula rotundifolia¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³, Symphoricarpos albus^{5,59,133,136}; CARYOPHYLLACEAE: Cerastium arvense¹³³; DIPSACACEAE: Dipsacus fullonum⁸; ERICACEAE: Gaultheria shallon³, Rhododendron⁵; FABACEAE: Astragalus miser var. serotinus⁵⁹, Lathyrus japonicus¹³⁶, L. nevadensis⁵, L. odoratus³, Lupinus albicaulis¹³³, L. lepidus¹³³, L. littoralis¹³⁶, Trifolium pratense¹³³, T. repens^{3,5,59}, Vicia americana¹³³, V. sativa¹³³, V. villosa⁸; GERA-NIACEAE: Geranium dissectum¹³³; GROSSULARIACEAE: Ribes divaricatum¹³⁶; HYDROPHYLLACEAE: Phacelia leptosepala⁵⁹; HYPERICACEAE: Hypericum perforatum¹³³; IRIDACEAE: Sisyrinchium⁸; LAMIACEAE: Agastache urticifolia⁸, Prunella vulgaris¹³³; ONAGRACEAE: Chamerion angustifolium ssp. angustifolium^{3,8}; OROBRANCHACEAE: Castilleja⁸, C. miniata⁵⁹, Parentucellia viscosa¹³³; PLANTAGINACEAE: Collinsia grandiflora¹³³, Penstemon⁸, P. confertus⁵⁹, P. washingtonensis⁵⁹; POLEMONIACEAE: Gilia capitata¹³³; RANUNCULACEAE: Delphinium nuttallianum^{59,133}; ROSACEAE: Potentilla gracilis¹³³, Rubus bifrons¹³⁶

- 158. \$ Bombus (Pyrobombus) frigidus Smith, 1854. County records: Chelan^{1,2,3}, Clallam^{1,2}, Cowlitz^{1,2}, Jefferson^{1,2}, King^{1,2,3}, Kitsap^{1,2,3}, Okanogan^{1,2,3}, Thurston^{1,2}, Whatcom^{1,2}, Yakima^{1,2}. Seasonality: Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2,3} (2010^{1,2}). Collections: BBSL, CNC, NMNH, SEMC. Conservation status: Least Concern (Hatfield et al. 2014e); G5 Secure globally, S2 Imperiled in Washington (NatureServe 2024). Floral records: CAPRIFOLIACEAE: Symphoricarpos albus³; FABACEAE: Lupinus³; ONAGRACEAE: Epilobium³
- **159.** *Bombus* (*Pyrobombus*) *huntii* Greene, **1860**. County records: Adams^{1,2,3}, Asotin^{1,2}, Benton^{1,2,3}, Chelan^{1,2,3}, Douglas^{1,2,3}, Ferry^{1,2,3}, Garfield⁴⁶, Grant^{1,2,3}, King^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lincoln^{1,2,3}, Okanogan^{1,2,3}, Pierce^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2}, Thurston^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: Mar^{1,2}, Apr^{1,2,3}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2}, Oct^{1,2,3}, Nov^{1,2} (2022^{1,2}). Collections: AMNH, BOMBUS, BugGuide, EMEC, iNaturalist, INHS, LACM, NMNH, SEMC, UCRC. Conservation status: Least Concern (Hatfield et al. 2015h); G5 Secure globally, S4 Apparently Secure in Washington (Nature-Serve 2024). Floral records: CAPRIFOLIACEAE: *Symphoricarpos albus*³
- **160.** * *Bombus (Pyrobombus) impatiens* Cresson, **1863**. County records: King^{1,2}, Skagit^{1,2}, Whatcom^{1,2,3,6,33}. Seasonality: Apr^{1,2,33}, May^{1,2,6,33}, Jul^{1,2,6}, Aug^{1,2,6,33},

- Sep^{1,6}, Oct^{1,2,3,6}, Dec^{1,2} (2022^{1,2}). Collections: BOMBUS, BugGuide, iNaturalist, WSDA. Conservation status: Least Concern (Hatfield et al. 2014f); G5 Secure globally (NatureServe 2024)
- **161.** § *Bombus (Pyrobombus) lapponicus sylvicola* Kirby, **1837**. County records: Chelan^{1,2,3,124}, Clallam^{1,2,3,47,69,124}, Jefferson^{1,2,3,47,69,124}, King^{1,2,3}, Kittitas^{1,2}, Lewis^{1,2,47,124}, Lincoln^{1,2}, Mason^{1,2,3}, Okanogan^{1,2}, Pierce^{1,2,3,47,124}, San Juan^{1,2,3,124}, Skagit^{1,2,3,47,124}, Whatcom^{1,2,3,47}, Yakima^{1,2}, Seasonality: Jun^{1,2}, Jul^{1,2,3,47}, Aug^{1,2,3,47}, Sep^{1,2,3} (2018^{1,2}). Collections: BBSL, BOMBUS, iNaturalist, JRYA, LACM, NMNH, OSUC, PMNH, PWRC, UCDC. Conservation status: Least Concern (Hatfield et al. 2015j); G5 Secure globally, S3 Vulnerable in Washington (NatureServe 2024)
- 162. Bombus (Pyrobombus) melanopygus Nylander, 1848. County records: Chelan^{1,2,3,124}, Clallam^{1,2,3,47,124}, Clark^{1,2,3}, Cowlitz^{1,2}, Douglas^{1,2}, Ferry^{1,2}, Franklin^{1,2}, Grays Harbor^{1,2,3}, Island^{1,2}, Jefferson^{1,2,3,47,124}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2}, Lewis^{1,2,3}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3}, Pend Oreille^{1,2,3}, Pierce^{1,2,3,47,124}, San Juan^{1,2,3,5,6,22,47,124,136}, Skagit^{1,2,3,10,124}, **Skamania**^{1,2,3}, **Snohom**ish^{1,2,3,6}, Spokane^{1,2,3}, Thurston^{1,2,3,130,133}, Walla Walla^{1,2,3}, Whatcom^{1,2,3,6,33,47,124}, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, Feb^{1,2}, Mar^{1,2}, Apr^{1,2,3,5,133}, $May^{1,2,3,5,33,133}$, $Jun^{1,2,3,5,133}$, $Jul^{1,2,3,6,47}$, $Aug^{1,2,3,6,47}$, $Sep^{1,2}$, $Oct^{1,2}$, $Nov^{1,2}$, $Dec^{1,2}$ (2022^{1,2}). Collections: AMNH, BBSL, BOMBUS, CNC, EMEC, FMNH, iNaturalist, INHS, LACM, NMNH, OSUC, PMNH, PWRC, SEMC, UCDC, UCRC, WSDA. Conservation status: Least Concern (Hatfield et al. 2014g); G5 - Secure globally, S4 - Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Achillea millefolium^{59,133}, Anaphalis margaritacea⁵⁹, Erigeron speciosus⁵⁹, Grindelia integrifolia⁵, Hypochaeris radicata¹³³, Microseris nutans⁵⁹, Senecio integerrimus^{3,59}, Solidago simplex¹³³, Taraxacum officinale^{5,59}; BORAGINACEAE: Myosotis laxa⁵⁹; CAPRIFOLIACEAE: Symphoricarpos albus¹³⁶; CARYOPHYLLACEAE: Eremogone capillaris var. capillaris⁵⁹; CUCURBITACEAE: Marah oregana⁵; ERICACE-AE: Arctostaphylos uva-ursi¹³³, Heather⁵, Rhododendron⁵; FABACEAE: Lupinus albicaulis¹³³, L. lepidus¹³³, Trifolium repens^{3,59}, Vicia sativa¹³³; GROSSULARI-ACEAE: Ribes divaricatum⁵; HYDROPHYLLACEAE: Phacelia leptosepala⁵⁹; OROBRANCHACEAE: Castilleja miniata⁵⁹, Parentucellia viscosa¹³³; PLAN-TAGINACEAE: Collinsia grandiflora¹³³, Penstemon confertus⁵⁹; ROSACEAE: Rubus^{3,59}; VALERIANACEAE: Plectritis congesta⁵; VIOLACEAE: Viola adunca¹³³
- **163.** *Bombus* (*Pyrobombus*) *mixtus* Cresson, **1879**. County records: **Asotin**^{1,2,3}, Chelan^{1,2,3,124}, Clallam^{1,2,3,47,124}, Clark^{1,2,3}, Columbia^{1,2,3}, Cowlitz^{1,2,3}, Douglas^{1,2}, Ferry^{1,2,3}, Garfield^{1,2}, Grays Harbor^{1,2,3,6,70}, Island^{1,2,3,6}, Jefferson^{1,2,3,47,124}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lewis^{1,2,3,124}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3}, Pend Oreille^{1,2,3}, Pierce^{1,2,3,6,47}, San Juan^{1,2,3,5,6,22,47,124,136}, Skagit^{1,2,3,6,10,47,70,124}, Skamania^{1,2}, Snohomish^{1,2,3,6}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3,6,130,133}, Wahkiakum^{1,2,3}, Walla Walla^{1,2,3}, Whatcom^{1,2,3,6,47,124}, Whitman^{1,2,3,8}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, Feb^{1,2}, Mar^{1,2}, Apr^{1,2,5,133}, May^{1,2,3,5,133},

 $Jun^{1,2,3,5,6,133},\ Jul^{1,2,3,5,6,47,133},\ Aug^{1,2,3,5,6,47},\ Sep^{1,2,6},\ Oct^{1,2}\ (2022^{1,2}).\ Collections:$ AMNH, BBSL, BOMBUS, CNC, CSCA, EMEC, iNaturalist, INHS, JRYA, LACM, NMNH, OSUC, PMNH, PWRC, SEMC, UCRC, WFBM, WSDA, WSUC. Conservation status: Least Concern (Hatfield et al. 2014h); G5 – Secure globally, S5 – Secure in Washington (NatureServe 2024). Floral records: APOC-YNACEAE: Apocynum androsaemifolium¹³³; ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Achillea millefolium⁵⁹, Arnica cordifolia^{8,59}, Balsamorhiza deltoidea¹³³, Cirsium arvense¹³³, Crepis capillaris¹³³, Erigeron speciosus⁵⁹, Eriophyllum lanatum¹³³, Hypochaeris radicata¹³³, Jacobaea vulgaris⁵, Leucanthemum vulgare¹³³, Microseris laciniata¹³³, Rudbeckia occidentalis⁸, Senecio jacobaea¹³³, S. triangularis⁵⁹, Solidago simplex¹³³, Taraxacum officinale^{5,59,136}; BORAGINACEAE: Mertensia³, M. paniculata⁸; BRASSICACEAE: Brassica rapa⁵, Cakile maritima¹³⁶; CAPRIFOLIACEAE: Lonicera involucrata^{3,59}, Plectritis congesta¹³³, Symphoricarpos albus^{133,136}; ERICACEAE: Arctostaphylos uva-ursi¹³³, Phyllodoce empetriformis⁵⁹; FABACEAE: Astragalus miser var. serotinus⁵⁹, Lupinus⁵⁹, L. albicaulis¹³³, L. bicolor¹³³, L. lepidus¹³³, L. littoralis¹³⁶, L. polyphyllus⁸, Vicia hirsuta¹³³, V. sativa¹³³; GERANIACEAE: Geranium dissectum¹³³, G. molle^{5,136}; GROSSULARIACEAE: Ribes³, R. divaricatum^{5,136}; HYDROPHYLLACEAE: Phacelia⁸, P. leptosepala⁵⁹; HYPERICACEAE: Hypericum perforatum¹³³; IRIDACEAE: Sisyrinchium⁸; LA-MIACEAE: Prunella vulgaris¹³³; ONAGRACEAE: Chamerion angustifolium ssp. angustifolium⁸, Clarkia amoena¹³³; OROBRANCHACEAE: Pedicularis bracteosa var. latifolia⁵⁹; PAPAVERACEAE: Eschscholzia californica⁵; PLANTAGINACE-AE: Collinsia grandiflora¹³³, C. parviflora⁸, Penstemon confertus⁵⁹, P. washingtonensis⁵⁹; POLEMONIACEAE: Gilia capitata¹³³; RANUNCULACEAE: Delphinium nuttallianum⁵⁹; ROSACEAE: Potentilla gracilis¹³³, Rosa nutkana ssp. nutkana⁵⁹, Rubus⁵⁹, R. bifrons¹³⁶, R. ulmifolius⁵, R. parviflorus⁵⁹, R. ursinus⁵; VALERIAN-ACEAE: *Plectritis congesta*⁵

164. Bombus (Pyrobombus) sitkensis Nylander, 1848. County records: Chelan^{1,2,3}, Clallam^{1,2,3}, Clark^{1,2,3}, Columbia^{1,2,3}, Cowlitz^{1,2}, Grant³, Grays Harbor^{1,2,3}, Island^{1,2,3}, Jefferson^{1,2,3}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2}, Lewis^{1,2,3}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3}, Pend Oreille^{1,2}, Pierce^{1,2,3,6}, San Juan^{1,2,3,6,22,124,136}, Skagit^{1,2,3,6,10}, **Skamania**^{1,2}, **Snohomish**^{1,2,3}, **Spokane**^{1,2}, Thurston^{1,2,3,6,130,133}, **Whatcom**^{1,2,3,6}, **Whitman**^{1,2,3}, **Yakima**^{1,2,3}. Seasonality: Jan^{1,2}, Mar^{1,2}, $Apr^{1,2},\ May^{1,2,3,133},\ Jun^{1,2,3,6,133},\ Jul^{1,2,3,6,133},\ Aug^{1,2,3,6},\ Sep^{1,2,6},\ Oct^{1,2}\ (2022^{1,2}).\ Colline of the control of th$ lections: AMNH, BBSL, BOMBUS, CNC, CSCA, EMEC, FMNH, iNaturalist, INHS, JRYA, LACM, NMNH, OSUC, PMNH, PWRC, SEMC, UCDC, UCRC, WSDA. Conservation status: Least Concern (Hatfield et al. 2015i); G4 - Apparently Secure globally, S4 - Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Balsamorhiza deltoidea¹³³, Cirsium arvense¹³³, Hypochaeris radicata¹³³; CAPRIFO-LIACEAE: Plectritis congesta¹³³, Symphoricarpos albus^{133,136}; FABACEAE: Lathyrus³, Lupinus³, L. albicauilis¹³³, Vicia hirsuta¹³6; GROSSULARIACEAE: Ribes divaricatum¹³⁶; HYDROPHYLLACEAE: Phacelia leptosepala⁵⁹; LAMIACEAE: Agastache³,

- Prunella vulgaris¹³³; OROBANCHACEAE: Parentucellia viscosa¹³³; PRIMULA-CEAE: Dodecatheon hendersonii¹³³; RANUNCULACEAE: Delphinium nuttallii¹³³
- **165.** § *Bombus (Pyrobombus) vagans* Smith, 1854. County records: Chelan^{1,2}, Ferry^{1,2}, Lincoln^{1,2}, Okanogan^{1,2,3}, Pend Oreille^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston¹³³, Walla Walla^{1,2,3}, Whitman^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3,133}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2}, Sep^{1,2}, Oct^{1,2} (2021^{1,2}). Collections: BBSL, BOMBUS, BugGuide, EMEC, iNaturalist, UCRC, WSUC. Conservation status: Least Concern (Hatfield et al. 2015k); G4 Apparently Secure globally, S2 Imperiled in Washington (NatureServe 2024). Floral records: CAPRIFOLIACEAE: *Plectritis congesta*¹³³; IRIDACEAE: *Sisyrinchium*⁸
- 166. Bombus (Pyrobombus) vancouverensis Cresson, 1879. County records: Asotin^{1,2,3}, Benton^{1,2,3}, Chelan^{1,2,3,124}, Clallam^{1,2,3,124}, Columbia^{1,2,3}, Douglas^{1,2,3}, Ferry^{1,2,3}, Garfield^{1,2,3,46}, Grant^{1,2,3}, Jefferson^{1,2,3,124}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lewis^{1,2,124}, Lincoln^{1,2,3}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pend Oreille^{1,2,3}, Pierce^{1,2,3,124}, San Juan^{1,2,3,5,6,22,124,136}, Skagit¹²⁴, **Skamania**^{1,2,3}, **Spokane**^{1,2,3}, **Stevens**^{1,2,3}, **Thurs**ton^{1,2,3}, Walla Walla^{1,2,3}, Whatcom^{1,2,3,124}, Whitman^{1,2,3,8}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, Mar^{1,2}, Apr^{1,2,3}, May^{1,2,3,5}, Jun^{1,2,3}, Jul^{1,2,3,5,6}, Aug^{1,2,3,5,6}, Sep^{1,2}, Oct^{1,2} (2019^{1,2,6}). Collections: AMNH, BBSL, BOMBUS, CNC, CSCA, EMEC, FMNH, iNaturalist, INHS, JRYA, LACM, NMNH, PMNH, PWRC, OSUC, SEMC, UCRC, WSDA, WSUC. Conservation status: G5 – Secure globally (NatureServe 2024). Floral records: ASTERACEAE: Achillea millefolium⁵⁹, Agoseris glauca var. dasycephala⁵⁹, Anaphalis margaritacea^{8,59}, Arnica cordifolia⁵⁹, A. sororia⁵⁹, Cirsium arvense⁸, Erigeron speciosus⁵⁹, Hypochaeris radicata¹³⁶, Jacobaea vulgaris⁵, Microseris nutans⁵⁹, Rudbeckia occidentalis⁸, Senecio integerrimus⁵⁹, S. triangularis⁵⁹, Taraxacum officinale^{59,136}; BRASSI-CACEAE: Sisymbrium altissimum⁵⁹; CAPRIFOLIACEAE: Symphoricarpos albus^{59,136}; CUCURBITACEAE: Marah oregana⁵; FABACEAE: Astragalus miser var. serotinus⁵⁹, Lupinus⁵⁹, L. littoralis¹³⁶, L. polyphyllus⁸, L. sericeus⁵⁹, Melilotus albus⁵⁹, Trifolium pratense⁵⁹, T. repens⁵⁹, Vicia villosa⁸; GERANIACEAE: Geranium viscosissimum var. viscosissimum⁵⁹; GROSSULARIACEAE: Ribes divaricatum¹³⁶; HYDROPHYLLACEAE: Phacelia⁸, P. leptosepala⁵⁹; IRIDACEAE: Sisyrinchium⁸; ONAGRACEAE: Chamerion angustifolium ssp. angustifolium^{8,59}; OROBANCHACEAE: Orthocarpus tenuifolius⁵⁹; PLANTAGINACEAE: Collinsia parviflora⁸, Penstemon⁸, P. confertus⁵⁹, P. washingtonensis⁵⁹; POLEMONIACEAE: Polemonium pulcherrimum⁵⁹; ROSACEAE: Potentilla gracilis⁵⁹, Rubus bifrons¹³⁶, L. parviflorus⁵⁹
- **166a.** *Bombus* (*Pyrobombus*) *vancouverensis nearcticus* Handlirsch, **1888**. County records: Chelan^{1,2}, Kittitas^{1,2}, Klickitat^{1,2}, Lewis⁶⁸, Okanogan^{1,2}, Pend Oreille^{1,2}, Pierce^{1,2,68}, Skamania^{1,2}, Spokane^{1,2}, Stevens^{1,2}, Whatcom^{1,2}, Whitman^{1,2}, Yakima^{1,2}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2}, Jul^{1,2}, Aug^{1,2}, Sep^{1,2}, Oct^{1,2} (2022^{1,2}). Collections: iNaturalist
- **166b.** *Bombus* (*Pyrobombus*) *vancouverensis vancouverensis* Cresson, 1879. County records: San Juan^{1,2,68}, **Skagit**^{1,2}. Seasonality: Mar^{1,2}, Apr^{1,2,3}, May^{1,2,3}, Aug^{1,2} (2020^{1,2}). Collections: iNaturalist
- 167. § *Bombus (Pyrobombus) vandykei* (Frison, 1927). County records: Chelan^{1,2,3}, Clallam^{3,124}, Douglas^{1,2}, Grays Harbor^{1,2}, Jefferson^{1,69,124}, King^{1,2,3}, Kittitas^{1,2,3},

- Klickitat^{1,2}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pierce^{1,2,3}, San Juan¹²⁴, Snohomish^{1,2,3}, Thurston^{1,2,3}, Whatcom^{1,2}, Whitman^{1,2,3}, Yakima^{1,2,3,105}. Seasonality: Mar^{1,2}, Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2} (2021^{1,2}). Collections: AMNH, BBSL, BOMBUS, CAS, EMEC, iNaturalist, INHS, JRYA, LACM, NMNH, PMNH, UCRC. [= *Bombus flavifrons* var. *vandykei* Frison, 1927]. Holotype. USA, Washington, Yakima County, Mt. Adams, Yakima Indian Forest Reservation; CAS #2437. [= *Pyrobombus cascadensis* Milliron, 1970]. Conservation status: Least Concern (Hatfield et al. 2015l); G4 Apparently Secure globally, S3 Vulnerable in Washington (NatureServe 2024). Floral records: FABACEAE: *Lupinus*^{3,59}; HYDROPHYLLACEAE: *Phacelia leptosepala*⁵⁹
- 168. Bombus (Pyrobombus) vosnesenskii Radoszkowski, 1862. County records: Benton^{1,2,3}, Chelan^{1,2}, Clallam^{1,2,3,6,124}, Clark^{1,2,3,124}, Cowlitz^{1,2,3}, Douglas^{1,2}, Garfield^{1,2,3}, Grays Harbor^{1,2}, Island^{1,2,3,124}, Jefferson^{1,2,3,6,124}, King^{1,2,3,6}, Kitsap^{1,2,3}, Kittitas^{1,2}, Klickitat^{1,2}, Lewis^{1,2,4}, Lincoln^{1,2}, Mason^{1,2,3}, Okanogan^{1,2}, Pacific^{1,2,3,6}, Pierce^{1,2,3,6}, San Juan^{1,2,3,5,6,136}, Skagit^{1,2,3,6,10}, Skamania^{1,2,3}, Snohomish^{1,2,6}, Stevens^{1,2}, Thurston^{1,2,3,6,130,133}, Wahkiakum^{1,2}, Walla Walla^{1,2,3}, Whatcom^{1,2,6,33}, **Whitman**^{1,2}, **Yakima**^{1,2,3}. Seasonality: Jan^{1,2}, Feb^{1,2}, Mar^{1,2}, Apr^{1,2,5,33,133}, $May^{1,2,5,33,133}$, $Jun^{1,2,3,5,133}$, $Jul^{1,2,3,5,6,133}$, $Aug^{1,2,6,33}$, $Sep^{1,2,6}$, $Oct^{1,2,3}$, $Nov^{1,2}$, $Dec^{1,2,3}$ (2022^{1,2}). Collections: AMNH, BBSL, BOMBUS, BugGuide, CNC, CSCA, EMEC, FMNH, iNaturalist, INHS, LACM, NMNH, PCYU, PMNH, PWRC, SEMC, TAMU, UCRC, WSDA. Conservation status: Least Concern (Hatfield et al. 2015m); G5 – Secure globally, S5 – Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Brodiaea coronaria¹³³, Camassia quamash¹³³; ASTERACEAE: Balsamorhiza deltoidea¹³³, Cirsium arvense¹³³, Crepis capillaris¹³³, Erigeron speciosus¹³³, Eriophyllum lanatum¹³³, Grindelia integrifolia⁵, Hypochaeris radicata^{5,133}, Leucanthemum vulgare¹³³, Microseris laciniata¹³³, Senecio jacobaea¹³³, Solidago missouriensis¹³³, S. simplex¹³³, Taraxacum officinale¹³³; BRAS-SICACEAE: Lepidium campestre¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³, Symphoricarpos albus^{133,136}; CARYOPHYLLACEAE: Cerastrium arvense¹³³; ERI-CACEAE: Arctostaphylos uva-ursi¹³³; FABACEAE: Lathyrus japonicus¹³⁶, Lupinus albicaulis¹³³, L. bicolor¹³³, L. lepidus¹³³, L. littoralis¹³⁶, Trifolium pratense¹³³, T. repens¹³³, Vicia americana¹³³, V. hirsuta¹³³, V. sativa^{133,136}; GROSSULARIACEAE: Ribes⁵; HYPERICACEAE: Hypericum perforatum¹³³; LAMIACEAE: Prunella vulgaris¹³³; OROBANCHACEAE: Castilleja hispida¹³³, C. levisecta¹³³, Parentucellia viscosa¹³³; PAPAVERACEAE: Eschscholzia californica⁵; PLANTAGI-NACEAE: Collinsia grandiflora¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; POLEMONIACEAE: Gilia capitata¹³³; PRIMULACEAE: Dodecatheon hendersonii¹³³; RANUNCULACEAE: Delphinium nuttallii¹³³; ROSACEAE: Potentilla gracilis¹³³, Rubus bifrons¹³⁶; SAPINACEAE: Acer macrophyllum⁵
- 169. § Bombus (Subterraneobombus) appositus Cresson, 1879. County records: Asotin^{1,2,3}, Chelan^{1,2,3}, Clallam^{1,2,3,124}, Clark^{1,2,124}, Columbia^{1,2,3}, Ferry^{1,2}, Franklin^{1,2,3}, Garfield^{1,2,3}, Grant³, King^{1,2}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lincoln^{1,2}, Mason³, Okanogan^{1,2,3,59}, Pend Oreille^{1,2,3}, San Juan^{1,2,3,5}, Skagit³, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3}, Walla Walla^{1,2,3}, Whatcom^{1,2,3},

Whitman^{1,2,3,6,8}, **Yakima**^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3,5,6}, Aug^{1,2,3,6}, Sep^{1,2}, Oct^{1,2}, Nov^{2,3} (2022^{1,2}). Collections: BBSL, BOMBUS, Bug-Guide, CNC, CSCA, FMNH, iNaturalist, INHS, JRYA, LACM, NMNH, PMNH, TAMU, UCRC, WSDA, WSUC. Conservation status: Least Concern (Hatfield et al. 2015n); G3 – Vulnerable globally, S4 – Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: *Triteleia grandiflora*⁸; ASTERACEAE: *Balsamorhiza sagittata*⁸, *Cirsium*³, *C. arvense*⁵; BO-RANGINACEAE: *Myosotis laxa*⁵⁹; FABACEAE: *Lupinus*³, *Medicago sativa*³, *Vicia villosa*⁸; HYDROPHYLLACEAE: *Phacelia*⁸; LAMIACEAE: *Agastache urticifolia*⁸; OROBANCHACEAE: *Orthocarpus tenuifolius*^{3,59}; PLANTAGINACEAE: *Penstemon confertus*^{3,59}, *P. washingtonensis*^{3,59}

170. § Bombus (Thoracobombus) fervidus (Fabricius, 1798) species complex. County records: Adams^{1,2,3}, Asotin^{1,2,3}, Benton^{1,2,3,71}, Chelan^{1,2,3}, Clallam^{1,2,3}, Clark^{1,2}, Columbia^{1,2}, Cowlitz^{1,2,3}, Douglas^{1,2}, Ferry^{1,2}, Franklin^{1,2,3}, Garfield^{1,2,46}, Grant^{1,2,3}, Grays Harbor^{1,2,6,70}, Island^{1,2,3}, Jefferson^{1,2,3}, King^{1,2,3}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lewis^{1,2,3}, Lincoln^{1,2}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3,6}, Pend Oreille^{1,2}, Pierce^{1,2,3,6}, San Juan^{1,2,3}, Skagit^{1,2,10,70}, Skamania^{1,2}, Snohomish^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2}, Thurston^{1,2,3,6,133}, Wahkiakum^{1,2}, Walla Walla^{1,2,3}, Whatcom^{1,2,33}, Whitman^{1,2,3,6,8}, **Yakima**^{1,2,3}. Seasonality: Jan^{1,2}, Mar^{1,2}, Apr^{1,2,3,133}, May^{1,2,3,133}, Jun^{1,2,3,133}, Jul^{1,2,3,6}, Aug^{1,2,3,6,33}, Sep^{1,2,3,6}, Oct^{1,2,3}, Nov^{1,2}, Dec^{1,2} (2022^{1,2}). Collections: AMNH, BBSL, BOMBUS, BugGuide, CNC, EMEC, FMNH, iNaturalist, INHS, LACM, NMNH, PMNH, OSUC, SEMC, TAMU, UCDC, UCRC, WSDA, WSUC. Conservation status: Vulnerable (Hatfield et al. 2015p); G3 - Vulnerable globally, S4 - Apparently Secure in Washington (NatureServe 2024). Floral records: ASPARAGACEAE: Camassia quamash133, Triteleia grandiflora8; ASTERACEAE: Anaphalis margaritacea8, Balsamorhiza deltoidea133, B. sagittata⁸, Cirsium vulgare⁸, Hypochaeris radicata¹³³, Leucanthemum vulgare¹³³, Microseris laciniata¹³³, Rudbeckia occidentalis⁸, Taraxacum officinale¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³, Symphoricarpos albus¹³³; CONVOLVULACEAE: Ipomoea³; DIPSACACEAE: Dipsacus fullonum8,; FABACEAE: Astragalus sinuatus3, Lathyrus odoratus³, Lupinus albicaulis¹³³, L. polyphyllus³, Medicago sativa³, Trifolium pratense¹³³, T. repens^{3,59,133}, Vicia americana¹³³, V. sativa¹³³, V. villosa⁸; GERANIACEAE: Geranium viscosissimum8; HYDROPHYLLACEAE: Phacelia leptosepala59; HY-PERICACEAE: Hypericum perforatum¹³³; IRIDACEAE: Sisyrinchium⁸; LAMI-ACEAE: Agastache urticifolia⁸, Prunella vulgaris¹³³; ONAGRACEAE: Chamerion angustifolium ssp. angustifolium8; OROBRANCHACEAE: Castilleja hispida133, C. levisecta¹³³, C. miniata⁵⁹, Parentucellia viscosa¹³³; PLANTAGINACEAE: Collinsia grandiflora¹³³, Penstemon washingtonensis⁵⁹; RANUNCULACEAE: Delphinium nuttallii¹³³; ROSACEAE: Malus domestica⁸, Rosa⁸. Comments: Bombus fervidus and B. californicus are morphologically identical, but molecular analysis by Koch et al. (2018) supports the existence of two distinct lineages. However, based on the original species description, it is unclear which name is attributed to which species, or if these names represent two variations of the same species (Koch et al. 2018). Records of both species are presented here as a single species complex.

Eucerinae: Emphorini

Genus Diadasia Patton

- 171. *Diadasia* (*Coquillettapis*) *diminuta* (Cresson, 1878). County records: Asotin³⁶, Benton^{1,2,3}, Chelan^{1,2,3}, Walla Walla^{1,2}, Whatcom³, Whitman³⁶, Yakima⁷. Seasonality: May^{1,2,3}, Jun^{1,2,3,7}, Jul^{1,2,7}, Aug³ (2022^{1,2}). Collections: BBSL, iNaturalist, JRYA, UCRC, WSUC
- 172. † *Diadasia* (*Coquillettapis*) *lutzi* Cockerell, 1924. County records: Benton⁷, Yakima⁷. Seasonality: May⁷ (2015⁷). Collections: WSUC
- **173.** *Diadasia* (*Coquillettapis*) *nigrifrons* (Cresson, 1878). County records: Chelan¹, Kittitas^{1,2,3}, Whitman^{8,36}, Yakima³⁶. Seasonality: Jul^{1,2,3} (2023¹). Collections: SEMC, WSUC. Floral records: MALVACEAE: *Sidalcea oregana*⁸
- 174. ‡ *Diadasia* (*Coquillettapis*) *nitidifrons* Cockerell, 1905. County records: Chelan³, Yakima³6. Seasonality: Jun¹ (1919¹). Collections: UCRC
- 175. ‡ *Diadasia* (*Dasiapis*) *ochracea* (Cockerell, 1903). County records: Whitman³⁶, Yakima^{7,36,121}. Seasonality: Jun^{7,121} (1903^{7,121}). Collections: WSUC. Comments: Adlakha (1969) synonymizes *D. ochracea* with *D. olivacea*; however, Snelling (1994) determined these were separate species and notes Washington records as *D. ochracea*.
- **176.** *Diadasia* (*Diadasia*) *enavata* (Cresson, 1872). County records: Asotin^{1,2}, Benton^{1,2,3,7}, Klickitat^{2,3}, Walla Walla^{1,2,3,7,36,71}, Whitman^{1,2,3,7,8,36}, Yakima⁷. Seasonality: Jun^{1,2,7}, Jul^{1,2,3,7}, Aug^{1,2,3,7}, Sep^{1,2} (2012^{1,2}). Collections: BBSL, BugGuide, INHS, TAMU, WSUC. Floral records: ASTERACEAE: *Helianthus*^{3,7}, *H. annuus*⁸

Eucerini

Genus Epimelissodes Ashmead

- 177. *Epimelissodes* (*Epimelissodes*) *obliquus* (**Say, 1837**). County records: Yakima². Seasonality: Jul² (2015²). Collections: BugGuide, iNaturalist
- 177a. *Epimelissodes* (*Epimelissodes*) *obliquus expurgatus* Cockerell, 1925. County records: Benton^{1,2,3}, Grant^{1,2}, Walla Walla^{1,2,3}, Whitman⁷², Yakima⁷². Seasonality: Jul^{1,2}, Aug^{1,2,3} (2020^{1,2}). Collections: BBSL, iNaturalist

Genus Eucera Scopoli

- 178. Eucera (Synhalonia) actuosa (Cresson, 1878). County records: Benton^{1,2,3}, Chelan^{1,2,3}, Garfield^{1,2,3,46}, Spokane^{1,2}, Whitman^{8,109}. Seasonality: Mar^{1,2}, Apr^{1,2,3}, May^{1,2,3,109}, Jun^{1,2,3,46} (2015^{1,2}). Collections: BBSL, SEMC, WSUC. Floral records: ASTERACEAE: Balsamorhiza careyana³, B. sagittata⁸; FABACEAE: Lupinus⁸, Onobrychis viciifolia³, Vicia villosa⁸; ROSACEAE: Malus domestica⁸, Prunus virginiana⁸
- **179.** *Eucera* (*Synhalonia*) *amsinckiae* (Timberlake, 1969). County records: Benton^{1,2,3}, Walla Walla^{1,2,3}, Whitman¹⁰⁹. Seasonality: Apr^{1,2,3}, May^{1,2,3} (2015^{1,2}). Collections: BBSL

- **180.** †‡ *Eucera (Synhalonia) angustifrons* (Timberlake, 1969). County records: Spokane². Seasonality: Jun² (1957²). Collections: SEMC
- **181.** *Eucera* (*Synhalonia*) *delphinii* (**Timberlake, 1969**). County records: Asotin^{1,2,3,109}, Garfield⁴⁶, **Spokane**^{1,2}, **Stevens**^{1,2}, Whitman^{1,2,3,109}. Seasonality: Apr^{1,2}, May^{1,2,109}, Jul^{1,2,3,109} (2015^{1,2}). Collections: BBSL, SEMC
- **182.** § *Eucera (Synhalonia) douglasiana* (Cockerell, 1906). County records: Benton^{1,2}, Grant^{109,112,121}. Seasonality: Apr^{1,2}, Jul^{109,121} (2015^{1,2}). Collections: BBSL. [= *Tetralonia douglasiana* Cockerell, 1906]. Conservation status: Vulnerable (Shepherd 2005b; National Research Council 2007). Comments: Cockerell (1906b) and Timberlake (1969) note a record at Steamboat Rock, Grand Coulee in Douglas County; however, Steamboat Rock, Grand Coulee is located in Grant County.
- 183. Eucera (Synhalonia) edwardsii (Cresson, 1878). County records: Benton^{1,2,3}, Chelan¹³⁶, Franklin^{1,2,118}, Garfield^{1,2,3,46}, Grant⁶, Klickitat^{1,2}, Spokane^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3,6,8}, Yakima^{1,2,3,6}. Seasonality: Apr^{1,2,3}, May^{1,2,3,118}, Jun^{1,2,3,6}, Jul^{1,2} (2022⁶). Collections: BBSL, NMNH, SEMC, WSDA, WSUC. Floral records: DIPSACACEAE: Dipsacus fullonum⁸; FABACEAE: Astragalus bungeanus³, A. columbianus³, Lupinus polyphyllus⁸, Vicia villosa⁸
- **184.** *Eucera* (*Synhalonia*) *frater* (Cresson, 1878). County records: Benton^{1,2}, Chelan^{1,2,3}, Garfield^{1,2,46}, Jefferson^{1,2}, Klickitat^{1,2}, San Juan^{1,2,124,136}, Stevens^{1,2,109}, Thurston^{1,2,118}, Walla Walla^{1,2,3}, Whitman^{1,2,3,6,8,61}. Seasonality: Mar¹, Apr^{1,2,109,118}, May^{1,2,3,118}, Jun^{1,2,3,6,46,118}, Jul^{1,2,118}, Aug^{1,2} (2017¹³⁶). Collections: BBSL, BugGuide, NMNH, PWRC, WSDA, WSUC. [= *Synhalonia edwardsii latior* Cockerell, 1897]. Floral records: ASPARAGACEAE: *Triteleia grandiflora*⁸; ASTERACEAE: *Balsamorhiza sagittata*⁸, *Hypochaeris radicata*¹³⁶; FABACEAE: *Astragalus sinuatus*³, *Lathyrus japonicus*¹³⁶, *Lupinus*^{3,118}, *Trifolium repens*⁸, *Vicia sativa*¹³⁶; OLEACEAE: *Syringa*⁸; PLANTAGINACEAE: *Penstemon attenuatus*⁸; ROSACEAE: *Malus domestica*⁸
- 184a. § Eucera (Synhalonia) frater lata (Provancher, 1888). County records: Asotin^{1,2,3,109}, Chelan^{1,2,3}, Garfield^{1,2,3}, Island¹⁰⁹, Jefferson^{1,2}, King¹⁰⁹, Pierce^{1,2,3}, San Juan^{1,2,3,5,22,124}, Whitman^{1,2,109}. Seasonality: Apr^{1,2,3,5}, May^{1,2,3,5,109}, Jun^{1,2,3,5,109}, Jul^{1,2,3,109}, Aug¹⁰⁹ (2015^{1,2,22}). Collections: BBSL, PWRC, SEMC. Conservation status: Vulnerable (Shepherd 2005c; National Research Council 2007). Floral records: ASPARAGACEAE: Camassia quamash⁵; ASTERACEAE: Taraxacum officinale⁵; BERBERIDACEAE: Berberis aquifolium⁵; FABACEAE: Astragalus bungeanus³, A. cicer³; HYDROPHYLLACEAE: Hydrophyllum¹⁰⁹
- **185.** *Eucera (Synhalonia) fulvitarsis* (Cresson, 1878). County records: Benton^{1,2,3,109}, Chelan^{1,2,3,109}, **Douglas**^{1,2}, Garfield⁴⁶, **Walla Walla**^{1,2}, Yakima^{1,2,3,109,121}. Seasonality: Mar^{1,2}, Apr^{1,2,3,121}, May^{1,2,3} (2015^{1,2}). Collections: BBSL, SEMC. [= *Synhalonia yakimensis* Cockerell, 1906]. **Holotype**. USA, Washington, Yakima County, Yakima. [= *Tetralonia yakimensis* Cockerell, 1906]. Floral records: FABACEAE: *Astragalus columbianus*³
- **186.** *Eucera* (*Synhalonia*) *hurdi* (Timberlake, 1969). County records: Asotin², Spokane^{1,2}, Whitman^{3,109}. Seasonality: Apr^{1,2,3,109}, May^{1,2} (2015^{1,2}). Collections: BBSL, SEMC
- **187.** † *Eucera (Synhalonia) speciosa* (Cresson, 1878). County records: Benton^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2} (2015^{1,2}). Collections: BBSL

Genus Melissodes Latreille

- **188.** *Melissodes* (*Callimelissodes*) *glenwoodensis* Cockerell, **1905**. County records: Grant⁴⁹
- **189.** *Melissodes* (*Callimelissodes*) *lupinus* Cresson, **1878.** County records: Benton^{1,2,7,71}, **Klickitat**^{1,2}, Walla Walla^{1,2,7,71}, Whitman^{1,2,7,8,49}, **Yakima**⁷. Seasonality: Jun^{1,2,7}, Jul^{1,2,7}, Aug^{1,2}, Sep^{1,2} (2015^{1,2}). Collections: BBSL, WSUC. Floral records: ASTERACEAE: *Helianthus annuus*⁸
- **190.** ‡ *Melissodes* (*Callimelissodes*) *metenua* Cockerell, **1924**. County records: Kittitas^{1,2}, Whitman^{7,8}, Yakima⁴⁹. Seasonality: Jul^{1,2,7}, Aug⁷ (1962⁷). Collections: TAMU, WSUC. Floral records: ASTERACEAE: *Pyrrocoma liatriformis*⁸
- 191. ‡ *Melissodes (Callimelissodes) plumosus* LaBerge, 1961. County records: Yakima⁴⁹. Seasonality: Jul⁴⁹, Aug⁴⁹ (1941⁴⁹)
- **192.** ‡ *Melissodes* (*Callimelissodes*) *stearnsi* Cockerell, **1905**. County records: Kittitas^{1,2,49}, **Okanogan**^{1,2,3}, Seasonality: Jul^{1,2,3} (1949^{1,2}). Collections: BBSL, SEMC
- 193. *Melissodes* (*Eumelissodes*) *agilis* Cresson, 1878. County records: Adams^{7,49}, Asotin^{1,2,49}, Benton^{1,2,3,7,71}, Chelan^{7,49}, **Douglas**^{1,2}, **Garfield**⁷, **Grant**^{1,2}, Klickitat⁴⁹, **Spokane**^{1,2}, Walla Walla^{1,2,3,7,49,71}, Whitman^{1,2,7,8,49}, Yakima^{7,49}. Seasonality: Jun^{1,2,3,7}, Jul^{1,2,7}, Aug^{1,2,3,7}, Sep^{1,2,7}, Oct^{1,2,7} (2015⁷). Collections: BBSL, SEMC, TAMU, WSUC. Floral records: ASTERACEAE: *Helianthus annuus*⁸; GERANIACEAE: *Geranium*⁸
- **194.** *Melissodes* (*Eumelissodes*) *bimatris* LaBerge, 1961. County records: Benton⁷, Franklin⁴⁹, Grant⁴⁹, Okanogan⁴⁹, Walla Walla⁴⁹, Whitman⁷, Yakima⁴⁹. Seasonality: Sep⁷ (1993⁷). Collections: WSUC
- 195. † *Melissodes* (*Eumelissodes*) *brevipyga* LaBerge, 1961. County records: Benton⁷, Yakima⁷. Seasonality: Jul⁷ (2015⁷). Collections: WSUC
- 196. Melissodes (Eumelissodes) grindeliae Cockerell, 1898. County records: Yaki-ma⁴⁹
- 197. Melissodes (Eumelissodes) lutulentus LaBerge, 1961. County records: Adams^{7,49}, Benton⁷, Walla Walla⁷. Seasonality: Jun⁷, Aug⁷ (2015⁷). Collections: WSUC
- **198.** *Melissodes* (*Eumelissodes*) *menuachus* Cresson, 1868. County records: Benton^{1,2}, Grant⁴⁹, Okanogan^{2,3}, Walla Walla^{1,2,3,71}. Seasonality: Aug^{1,2}, Sep^{1,2,3} (2015^{1,2}). Collections: BBSL, SEMC
- **199.** *Melissodes* (*Eumelissodes*) *microstictus* Cockerell, 1905. County records: Benton⁷, Chelan⁷, Island^{2,7,49}, King^{1,2,49}, Kitsap^{7,23, 134}, Kittitas^{1,2}, Klickitat^{1,2}, Okanogan^{1,2,59}, Pend Oreille⁴⁹, Pierce^{1,2,49}, San Juan^{1,2,7,49,124}, Spokane^{1,2,49}, Thurston^{1,2,49}, Walla Walla^{1,2,7,49}, Whatcom^{7,49}, Whitman^{2,49}, Yakima⁴⁹. Seasonality: Apr^{1,2}, Jun^{1,2,7}, Jul^{1,2,7,134}, Aug^{1,2,7,134}, Sep^{1,2} (2015^{1,2}). Collections: BBSL, FMNH, iNaturalist, INHS PWRC, SEMC, TAMU, WSUC. Floral records: ASTERACEAE: *Anaphalis margaritacea*⁵⁹, *Erigeron speciosus*⁵⁹, *Hypochaeris radicata*¹³⁴
- **200.** *Melissodes* (*Eumelissodes*) *pallidisignatus* Cockerell, 1905. County records: Benton^{1,2,7}, Island^{2,3,49}, Jefferson^{1,2}, Kittitas², Klickitat², Okanogan^{1,2,59}, Pend Oreille^{2,49}, Stevens⁴⁹, Walla Walla^{1,2,7,8,71}, Whitman², Yakima². Seasonality: Jun^{1,2},

- Jul^{1,2,7}, Aug^{1,2,3}, Sep^{1,2} (2015^{1,2}). Collections: BBSL, INHS, SEMC, UCRC, WSUC. Floral records: ASTERACEAE: Achillea millefolium⁵⁹, Erigeron speciosus⁵⁹, Senecio triangularis⁵⁹; BRASSICACEAE: Sisymbrium altissimum⁵⁹
- **201.** *Melissodes* (*Eumelissodes*) *paululus* LaBerge, 1961. County records: Benton⁷, Walla Walla^{1,2,71}, Yakima⁴⁹. Seasonality: Jun^{1,2}, Jul^{1,2}, Aug^{1,2}, Sep^{1,2} (1998^{1,2}). Collections: BBSL, WSUC
- **202.** *Melissodes* (*Eumelissodes*) *robustior* Cockerell, 1915. County records: Adams⁷, Asotin⁴⁹, Benton^{1,2,7}, Spokane⁷, Walla Walla^{1,2,3,7,49}, Whitman^{1,2,3,7,8,49}, Yakima^{7,49}. Seasonality: Jun^{1,2,3,7}, Jul^{2,3,7}, Aug⁷ (1995^{1,3}). Collections: BBSL, INHS, SEMC, WSUC. Floral records: ASTERACEAE: *Helianthus annuus*⁸
- **203.** *Melissodes* (*Eumelissodes*) *saponellus* Cockerell, **1908**. County records: Benton^{1,2,7}, Grant⁴⁹, Yakima⁷. Seasonality: May^{1,2,7}, Jun^{1,2,7,49}, Jul⁷ (2015^{1,2,7}). Collections: BBSL, WSUC. **Holotype**. USA, Washington, Grant County, Grand Coulee, Soap Lake; 29 June 1902
- **204.** *Melissodes* (*Eumelissodes*) *semilupinus* Cockerell, 1905. County records: Benton^{1,7}, Chelan¹, Walla Walla^{7,49}, Whitman⁷, Yakima^{2,7}. Seasonality: Jul⁷, Aug^{1,7}, Sep^{1,2,7}, Oct⁷ (1995¹). Collections: INHS, WSUC
- **205.** *Melissodes* (*Eumelissodes*) *subagilis* Cockerell, 1905. County records: Adams⁷, Benton⁷, Grant^{7,49}. Seasonality: Jul⁷, Aug⁷, Sep⁷ (2015⁷). Collections: WSUC
- **206.** ‡ *Melissodes* (*Eumelissodes*) *verbesinarum* Cockerell, 1905. County records: Adams⁴⁹, Yakima⁷. Seasonality: Aug⁷ (1957⁷). Collections: WSUC
- **207.** *Melissodes* (*Eumelissodes*) *vernalis* LaBerge, 1961. County records: Adams⁴⁹, Benton⁷. Seasonality: Jun⁷ (2014⁷). Collections: WSUC
- **208.** *Melissodes* (*Heliomelissodes*) *rivalis* Cresson, **1872**. County records: Adams^{7,108}, Asotin¹⁰⁸, Benton^{1,2,3,7,71}, Columbia⁷, Garfield¹⁰⁸, Grant⁷, King^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,7}, Lewis^{2,3,108}, Lincoln¹⁰⁸, San Juan^{1,2,3,124}, Walla Walla^{1,2,7,71}, Whitman^{7,8,108}, Yakima^{7,108}. Seasonality: Jun^{1,2,3,7}, Jul^{1,2,3,7}, Aug^{1,2,7}, Sep^{1,2}, Oct^{1,2} (2012^{1,2}). Collections: BBSL, PWRC, SEMC, WSUC. Floral records: ASTERACEAE: *Cirsium vulgare*⁸
- **209.** *Melissodes* (*Melissodes*) *communis* Cresson, **1878**. County records: Walla Walla^{1,2,3}. Seasonality: Jul^{1,2,3} (1998^{1,2,3}). Collections: BBSL
- **209a.** *Melissodes* (*Melissodes*) *communis alopex* Cockerell, **1928**. County records: Asotin^{2,3,72}, **Benton**⁷, Yakima^{1,2,7,72}. Seasonality: Jun^{2,3,7}, Jul^{1,2,3,7} (2015⁷). Collections: SEMC, WSUC
- **210.** *Melissodes* (*Tachymelissodes*) *dagosus* Cockerell, **1909**. County records: Adams^{7,108}, **Benton**⁷, Grant^{7,108}, **Lincoln**⁷, Yakima^{7,108}. Seasonality: Jun⁷, Jul⁷ (1973⁷). Collections: WSUC

Nomadinae: Ammobatini

Genus Oreopasites Cockerell

211. *Oreopasites* (*Oreopasites*) *vanduzeei* Cockerell, **1925**. County records: Benton^{1,2,3,9}. Seasonality: May^{1,2,3}, Jun⁹ (1990^{1,2,3}). Collections: AMNH

Epeolini

Genus Epeolus Latreille

- **212.** † *Epeolus americanus* (Cresson, 1878). County records: Benton^{1,2}, Walla Walla^{1,2}. Seasonality: Apr^{1,2}, May^{1,2} (2022^{1,2}). Collections: BBSL, iNaturalist
- **213.** *Epeolus compactus* Cresson, 1878. County records: King^{1,2}, Klickitat^{1,2}, Pierce^{1,2,4,73,74}, Thurston^{1,2}. Seasonality: Jun^{1,2,74}, Jul^{1,2,4,73} (2021^{1,2}). Collections: BBSL, iNaturalist, PCYU. Host records: *Colletes kincaidii* Cockerell⁷³
- **214.** *Epeolus emiliae* **Onuferko and Sheffield, 2022**. County records: Benton^{1,64}. Seasonality: Sep¹, Oct^{1,64} (2023¹). Collections: iNaturalist. Comments: iNaturalist record #98573666
- **215.** *Epeolus minimus* (Robertson, 1902). County records: Benton^{1,2}, Ferry^{1,2}, Spokane^{1,2}, Thurston³. Seasonality: May^{1,2}, Jul^{1,2}, Aug^{1,2} (2015^{1,2}). Collections: AMNH, BBSL, SEMC
- **216.** † *Epeolus novomexicanus* Cockerell, 1912. County records: Benton^{1,2}. Seasonality: Sep^{1,2} (2021^{1,2}). Collections: iNaturalist
- 217. *Epeolus olympiellus* Cockerell, 1904. County records: Benton^{1,2}, Douglas^{1,2}, Garfield^{1,2,4,73,74}, San Juan²², Thurston^{1,2,3,52,73,74,118}, Whitman^{1,2,73,74}. Seasonality: May^{1,2,4,74}, Jun^{1,2,74}, Jul^{1,2,3,52,73,74,118}, Aug^{1,2,73,74} (2021^{1,2}). Collections: AMNH, iNaturalist, NMNH, PCYU. Holotype. USA, Washington, Thurston County, Olympia; 2 July 1896; T Kincaid; USNM 534051. [= *Epeolus humillimus* Cockerell, 1918]. Holotype. USA, Washington, Whitman County, Pullman; 2 August 1908; WM Mann; Type No. 100017, USNM ENT 00534047

Genus Triepeolus Robertson

- **218.** *Triepeolus argus* **Rightmyer, 2008**. County records: Benton^{3,75}, Yakima^{3,75}. Seasonality: Sep^{3,75}, Oct³ (1993^{3,75}). Collections: Miliczky. Host records: *Melissodes pallidisignatus* Cockerell⁷⁵. Floral records: ASTERACEAE: *Ericameria nauseosa* var. *nauseosa*^{3,75}
- **219.** *Triepeolus argyreus* (Cockerell, 1907). County records: Benton³, Klickitat³, Walla Walla³, Yakima^{3,75}. Seasonality: Aug^{3,75}, Sep³ (1992³). Collections: Miliczky. Holotype. USA, Washington, Yakima County, North Yakima; 4 August 1903; USNM No. 100019. Host records: *Melissodes pallidisignatus* Cockerell^{3,75}. Floral records: ASTERACEAE: *Centromadia pungens* ssp. *pungens*³, *Dieteria canescens*³, *Ericameria nauseosa* var. *nauseosa*³
- **220.** † *Triepeolus concavus* (Cresson, 1878). County records: Adams³, Franklin¹, Yakima³. Seasonality: Jul³, Aug³ (2023¹). Collections: NMNH, iNaturalist. Host records: *Epimelissodes obliquus* (Say)⁷⁵
- **221.** † *Triepeolus grindeliae* Cockerell, 1907. County records: Benton^{1,2,3}. Seasonality: May^{1,2}, Jun^{1,2,3}, Sep^{1,2} (1995^{1,2,3}). Collections: BBSL. Floral records: ASTERACEAE: *Rhaponticum repens*³

- **222.** † *Triepeolus helianthi* (Robertson, 1897). County records: Klickitat^{2,3}, Whitman^{2,3}. Seasonality: Aug^{2,3}, Sep^{2,3} (1982^{2,3}). Collections: INHS. Host records: *Nomia melanderi* Cockerell⁷⁵, *Melissodes agilis* Cresson⁷⁵
- **223.** *Triepeolus paenepectoralis* Viereck, 1905. County records: Island³, Jefferson^{1,2}, Kitsap^{2,3,75}, Klickitat^{1,2}, Okanogan⁵⁹, Whitman^{1,2,3,51}. Seasonality: Jul^{1,2}, Aug^{1,2,3,51}, Sep^{1,2,3,51} (2022^{1,2}). Collections: BBSL, iNaturalist, INHS. Host records: *Melissodes microstictus* Cockerell⁷⁵
- **224.** *Triepeolus texanus* (Cresson, 1878). County records: Walla Walla^{1,2}, Whitman³, Yakima^{1,2,75}. Seasonality: Jun^{1,2}, Jul³, Aug^{1,2,75} (2012^{1,2}). Collection: BBSL, NMNH. [= *Triepeolus eldredi* Cockerell, 1907]. Holotype. USA, Washington, Yakima County, North Yakima; 7 August 1903; USNM No. 100029. Host records: *Melissodes druriellus* (Kirby)⁷⁵, *Nomia melanderi* Cockerell⁷⁵
- **225.** † *Triepeolus timberlakei* Cockerell, 1929. County records: Whitman^{1,2,3}. Seasonality: Sep^{1,2,3} (1982^{1,2,3}). Collections: BBSL

Melectini

Genus Brachymelecta Linsley

226. † *Brachymelecta californica* (Cresson, 1878). County records: Benton⁷, Jefferson^{1,2}, Whitman⁷, Yakima⁷. Seasonality: Jun⁷, Aug^{1,2}, Sep⁷ (2022^{1,2}). Collections: iNaturalist, WSUC. Conservation status: G5 – Secure globally (NatureServe 2024)

Genus Melecta Latreille

- **227.** *Melecta* (*Melecta*) *pacifica* Cresson, 1878. County records: Benton^{1,2}, Okanogan^{1,2,3,59}, Spokane^{1,2}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2,3} (2015^{1,2}). Collections: BBSL, SEMC
- 227a. Melecta (Melecta) pacifica fulvida Cresson, 1879. County records: Whitman³⁵
- **228.** *Melecta* (*Melecta*) *separata* Cresson, 1879. County records: Chelan¹³⁶, Pierce^{1,2}, Spokane^{1,2}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3} (2020^{1,2}). Collections: BBSL, iNaturalist. Floral records: FABACEAE: *Astragalus speirocarpus*³
- **228a.** *Melecta* (*Melecta*) *separata callura* (Cockerell, 1926). County records: Walla Walla³⁵. Comments: Linsley (1939) lists the Washington record as Whitman County (Walla Walla). Walla Walla is located in Walla Walla County.
- **228b.** † *Melecta (Melecta) separata separata* Cresson, 1879. County records: Benton^{1,2}, Chelan^{1,2}, Walla Walla^{1,2,3}. Seasonality: Mar^{1,2}, Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2} (2022^{1,2}). Collections: BBSL, iNaturalist
- **229.** † *Melecta (Melecta) thoracica* Cresson, 1875. County records: Douglas^{1,2}, Spokane^{1,2}, Whitman³. Seasonality: Apr^{1,2,3}, May^{1,2,3} (2015^{1,2}). Collections: BBSL

Genus Zacosmia Ashmead

230. ‡ *Zacosmia maculata maculata* (Cresson, 1879). County records: Walla Walla^{3,35}. Seasonality: Jun³ (1936³). Collections: BBSL. Comments: Linsley (1939) lists the Washington record as Whitman County (Walla Walla). Walla Walla is located in Walla Walla County.

Nomadini

Genus Nomada Scopoli

- **231.** *Nomada aldrichi* **Cockerell, 1910**. County records: Spokane⁷⁶. Seasonality: May⁷⁶. [= *Nomada vicinalis aldrichi* Cockerell, 1910]
- **232.** ‡ *Nomada articulata* **Smith, 1854**. County records: **Kitsap**^{1,2,3}, Whitman⁷⁶. Seasonality: May^{1,2,3,76} (1965^{1,2,3}). Collections: BBSL, BugGuide
- 233. ‡ Nomada bella Cresson, 1863. County records: King¹²⁰, Thurston¹²⁰. Seasonality: Jun¹²⁰ (1897¹²⁰)
- **234.** *Nomada civilis* **Cresson, 1878.** County records: Whitman⁷⁶. Seasonality: May⁷⁶. Comments: Discover Life has synonymized *N. civilis* with *N. opposita* without reference or explanation. We are not aware of any published work that that synonymizes these species and retain them as separate taxa in this checklist.
- 234a. Nomada civilis spokanensis Cockerell, 1910. County records: Spokane^{1,2,3,76}. Seasonality: May^{3,76}. Collections: NMNH. Holotype. USA, Washington, Spokane County, Spokane; 30 May; WM Mann; Type No. 29476, USNM ENT 00533989. Comments: Discover Life has synonymized *N. civilis spokanensis* with *N. opposita* without reference or explanation. We are not aware of any published work that that synonymizes these species and retain them as separate taxa in this checklist.
- **235.** *Nomada citrina* Cresson, 1878. [= *Xanthidium citrinum* Cresson, 1878]. Comments: Viereck et al. (1905) notes *N. citrina* occurs in Washington, but do not provide a locality.
- **236.** †‡ *Nomada collinsiana* Cockerell, 1905. County records: Walla Walla^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2} (1939^{1,2}). Collections: BBSL
- **237.** *Nomada coquilletti* **Cockerell, 1903**. County records: Whitman⁷⁶. Seasonality: Mar⁷⁶, Apr⁷⁶
- **238.** ‡ *Nomada cressonii trevoriana* Viereck, **1905**. County records: Thurston^{1,2,76,118}. Seasonality: Apr^{1,2,118} (1894^{1,2,118}). Collections: NMNH. **Holotype**. USA, Washington, Thurston County, Olympia; 22 April 1894
- **239.** † *Nomada crotchii* Cresson, 1878. County records: Benton^{1,2}, Walla Walla^{1,2,3}. Seasonality: Mar^{1,2}, May^{1,2,3} (2022^{1,2}). Collections: BBSL, iNaturalist
- **240.** *Nomada cuneata* (**Robertson, 1903**). County records: Whitman⁷⁶. Seasonality: May⁷⁶

- **241.** *Nomada edwardsii* Cresson, 1878. County records: Benton^{1,2}, Kittitas^{2,3}, Spokane^{1,2}, Walla Walla^{1,2,3}, Whitman^{1,2,3,76}. Seasonality: Mar^{1,2}, Apr^{1,2,3}, May^{1,2,3}, Jun^{1,2,76}, Jul^{1,2,3} (2015^{1,2}). Collections: BBSL, INHS. [= *Holonomada edwardsii* Cresson, 1878]
- **241a.** *Nomada edwardsii vinnula* Cresson, **1879**. County records: Spokane⁷⁶, Whitman⁷⁶. Seasonality: May⁷⁶
- **242.** ‡ *Nomada erythrochroa* Cockerell, 1903. County records: Franklin^{1,2,3,50,76,118}, Yakima^{50,76}. Seasonality: May^{1,2,3,118}, Jun^{50,76} (1903⁵⁰). Collections: NMNH. **Holotype**. USA, Washington, Franklin County, Pasco; 25 May 1896; Type No. 13185, USNM ENT 00533921
- **243.** ‡ *Nomada flammigera* Cockerell, 1906. County records: Yakima^{2,50,76}. Seasonality: May^{2,50}, Jul⁷⁶ (1906⁷⁶). Collections: LACM. Holotype. USA, Washington, Yakima County, North Yakima; 15 May 1903; E Jenne.
- **244.** *Nomada grayi eastonensis* **Cockerell, 1903**. County records: Kittitas^{1,2,3,76,118,120}. Collections: NMNH. **Holotype**. USA, Washington, Kittitas County, Easton; Type No. 13163, USNM ENT 00533917. [= *Gnathias grayi eastonensis* Cockerell, 1903]
- **245.** *Nomada hesperia hesperia* Cockerell, 1903. County records: Kittitas³, Walla Walla^{1,2,3}, Whitman^{2,3,76,77}. Seasonality: Apr^{3,77}, May^{1,2,3,76,77}, Jun⁷⁷ (1989³). Collections: BBSL, INHS. Floral records: ASTERACEAE: *Balsamorhiza*³
- **246.** *Nomada itamera* **Cockerell, 1910**. County records: Whitman^{2,76}. Seasonality: May⁷⁶. Collections: AMNH. **Holotype**. USA, Washington, Whitman County, Pullman; WM Mann; AMNH_IZC 00323820
- **247.** ‡ *Nomada jennei* Cockerell, 1906. County records: Yakima^{1,2,3,121}. Seasonality: Sep^{1,2,3,121} (1903^{1,2,3,121}). Collections: NMNH. Holotype. USA, Washington, Yakima County, North Yakima; 26 September 1903; E Jenne; Type No. 29484; USNM ENT 00533939
- 248. Nomada kincaidiana Cockerell, 1903. Holotype. USA: Washington State
- **249.** *Nomada lehighensis* Cockerell, 1903. County records: Asotin⁶⁵. Seasonality: May⁶⁵ (2007⁶⁵). Collection: PCYU
- **250.** ‡ *Nomada malonella* Cockerell, **1910**. County records: Whitman^{1,2,76}. Seasonality: May^{2,76} (1909^{2,76}). Collections: LACM, UCMC. **Holotype**. USA, Washington, Whitman County, Wawawai; 1 May 1909
- **251.** ‡ *Nomada malonina* Cockerell, 1910. County records: Whitman^{1,2,3,76}. Seasonality: May^{1,2,3,76} (1909^{1,2,3,76}). Collections: NMNH. Holotype. USA, Washington, Whitman County, Wawawai; 15 May 1909; WM Mann; Type No 29487, USNM ENT 00533947
- **252.** *Nomada mutans* **Cockerell, 1910**. County records: **Jefferson**^{1,2}, Pacific¹¹⁰, Whitman^{1,2,3,76,110,111}, Yakima¹¹¹. Seasonality: Jun^{1,2}, Jul¹¹⁰, Aug^{1,2,3,76,110,111} (2015^{1,2}). Collections: BBSL, NMNH, UCMC. **Holotype**. USA, Washington, Whitman County, Pullman; 9 August 1908; WM Mann; USNM 13192. **Paratype**. USA, Washington, Whitman County, Pullman; 9 August 1908; WM Mann
- **253.** ‡ *Nomada orcusella* Cockerell, 1910. County records: San Juan^{2,76}. Seasonality: Jul^{2,76} (1909^{2,76}). Collections: LACM

- **254.** ‡ *Nomada packardiella* Cockerell, 1906. County records: Ferry^{1,2}, Whitman⁷⁶. Seasonality: May⁷⁶, Aug^{1,2} (1931^{1,2}). Collections: SEMC
- **255.** *Nomada pascoensis* Cockerell, **1903**. County records: **Benton**^{2,3}, Franklin^{1,2,3,120}, **Klickitat**^{1,2}, **Walla Walla**^{1,2,3}. Seasonality: Apr^{2,3}, May^{1,2,3,120}, Aug^{1,2} (2011^{1,2}). Collections: BBSL, NMNH, SEMC
- **256.** ‡ *Nomada perbella* (Viereck, 1905). County records: Grays Harbor^{76,118}, King⁷⁶, Thurston^{76,118}, Whitman⁷⁶. Seasonality: May^{76,118}, Jun¹¹⁸ (1904¹¹⁸). [= *Gnathias perbella* Viereck, 1905]
- **257.** ‡ *Nomada perplexans* Cockerell, 1910. County records: Whitman^{1,2,3,76}. Seasonality: Jun^{1,2,3,76} (1908^{1,2,3,76}). Collections: NMNH. Holotype. USA, Washington, Whitman County, Pullman; 7 June 1908; WM Mann; Type No. 29493, USNM ENT 00533967
- **258.** *Nomada pulsatillae* Cockerell, 1906. County records: Spokane⁷⁶, Whitman⁷⁶. Seasonality: May⁷⁶
- **259.** *Nomada rivalis* Cresson, 1878. [= *Xanthidium rivale* Cresson, 1878]. Comments: Viereck et al. (1905) note *N. rivalis* occurs in Washington, but do not provide a locality.
- **260.** † *Nomada scita* Cresson, 1878. County records: Adams^{1,2,3}, Benton^{1,2,3}, Kittitas^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2} (2015^{1,2}). Collections: BBSL, SEMC
- **261.** ‡ *Nomada semisuavis* Cockerell, 1910. County records: Whitman^{1,2,76}. Seasonality: Jul^{1,2,76} (1908^{1,2,76}). Collections: LACM, UCMC. Holotype. USA, Washington, Whitman County, Wawawai; 4 July 1908; WM Mann
- **262.** † *Nomada suavis* Cresson, 1878. County records: Clallam^{1,2,3}, Walla Walla^{1,2,3}, Whitman³. Seasonality: Jun^{1,2,3}, Jul^{1,2,3} (2000^{1,2,3}). Collections: AMNH, BBSL. Host record: *Nomia melanderi* Cockerell⁷⁸
- **263.** † *Nomada texana* Cresson, 1872. County records: Walla Walla^{1,2}, Whitman^{1,2}. Seasonality: Apr^{1,2}, Jul^{1,2} (2011^{1,2}). Collections: BBSL, TTU. [= *Nomada heilig-brodtii* Cresson, 1878]
- **264.** *Nomada ultima* **Cockerell, 1903**. County records: Spokane⁷⁶. Seasonality: May⁷⁶. [= *Nomada modocorum* Cockerell, 1903]
- **265.** *Nomada washingtoni* Cockerell, 1903. Collections: NMNH. Holotype. USA, Washington State. [= *Gnathias washingtoni* Cockerell, 1903].

Xylocopinae: Ceratinini

Genus Ceratina Latreille

266. *Ceratina* (*Zadontomerus*) *acantha* Provancher, 1895. County records: Chelan^{1,2,3}, Clallam^{1,2,3}, Cowlitz^{1,2,3}, Jefferson^{1,2}, King^{1,2,3,58,125}, Kitsap^{1,2,3}, Klickitat^{1,2}, Mason³, Pierce^{1,2,3}, San Juan^{5,6}, Spokane^{1,2}, Thurston^{6,125,133}, Walla Walla^{1,2,3,71}, Whitman^{1,2,3,6,8}. Seasonality: Apr^{1,2,5}, May^{1,2,3,5,58}, Jun^{1,2,3,133}, Jul^{1,2,3,5,6}, Aug^{1,2,3,6}, Sep^{1,2,6} (2020¹³³). Collections: AMNH, BBSL, JRYA, SEMC, TAMU,

- WSDA, WSUC. Floral records: APIACEAE: Lomatium⁸; ASPARAGACEAE: Camassia quamash⁵; ASTERACEAE: Cirsium vulgare⁸, Eriophyllum lanatum^{8,133}, Helianthus annuus⁸, Hypochaeris radicata⁵, Taraxacum officinale⁵; GERANIACEAE: Geranium viscosissiumum⁸; HYPERICACEAE: Hypericum perforatum¹³³; MALVACEAE: Iliamna longisepala³; PLANTAGINACEAE: Penstemon triphyllus⁸; ROSACEAE: Rosa⁸
- **267.** †‡ *Ceratina* (*Zadontomerus*) *micheneri* **Daly, 1973**. County records: Whatcom⁷. Seasonality: Jun⁷ (1945⁷). Collections: WSUC
- **268.** Ceratina (Zadontomerus) nanula Cockerell, 1897. County records: Jefferson^{1,2}, Klickitat^{1,2}, San Juan^{1,2,5,124,136}, Spokane^{1,2}, Thurston¹³³, Whitman^{1,2,3,6,61}. Seasonality: Apr^{1,2,61}, May^{1,2,6,133}, Jun^{1,2,6,133}, Jul^{1,2,5,6,133}, Aug^{1,2,6}, Sep^{1,2}, Oct^{1,2} (2019¹³³). Collections: BBSL, PWRC, WSDA. Floral records: ASPARAGACE-AE: Brodiaea coronaria^{133,136}; ASTERACEAE: Cirsium arvense¹³⁶, Crepis capillaris^{5,133,136}, Eriophyllum lanatum¹³³, Grindelia integrifolia⁵, Hypochaeris radicata^{5,136}, Taraxacum officinale¹³⁶; CARYOPHYLLACEAE: Cerastium arvense¹³³; CON-VOLVULACEAE: Calystegia soldanella¹³⁶; ONAGRACEAE: Clarkia amoena¹³³; ROSACEAE: Rubus bifrons¹³⁶
- **269.** *Ceratina* (*Zadontomerus*) *pacifica* H. S. Smith, 1907. County records: Chelan⁵⁸, Grant^{1,2,4}, Klickitat^{2,3}, Okanogan⁵⁸, Spokane^{1,2}, Whitman^{1,2,58}. Seasonality: Apr⁵⁸, May^{1,2,58}, Jun^{1,2,58}, Jul^{1,2,58}, Aug^{1,2,3,58}, Sep^{1,2} (2014^{1,2}). Collections: BBSL, INHS, PCYU
- **270.** ‡ *Ceratina* (*Zadontomerus*) *sequoiae* Michener, 1936. County records: Whitman⁵⁸. Seasonality: Apr⁵⁸, May⁵⁸ (1919⁵⁸)

Xylocopini

Genus Xylocopa Latreille

271. †* *Xylocopa (Xylocopoides) virginica* (Linnaeus, 1771). County records: Benton¹, King¹. Seasonality: Apr¹, May¹ (2024¹). Collections: iNaturalist

Colletidae: Colletinae: Colletini

Genus Colletes Latreille

- **272.** *Colletes compactus hesperius* Swenk, 1906. County records: Walla Walla^{37,84}, Whitman^{37,84,126}, Yakima^{37,84}. Collections: NMNH. Holotype. USA, Washington, Whitman County, Almota
- **273.** *Colletes consors* Cresson, 1868. County records: Clallam³, Okanogan^{1,2,3,59}, Yakima³. Seasonality: Jul^{1,2,3} (2014³). Collections: BBSL, JRYA, SEMC. Floral records: HYDROPHYLLACEAE: *Phacelia leptosepala*^{3,59}
- **273a.** *Colletes consors pascoensis* Cockerell, **1898**. County records: Franklin^{53,115}, Okanogan^{1,2}, Walla Walla^{1,2,3}, Yakima^{1,2,3,37,84}. Seasonality: May^{1,2,3}, Jul^{1,2,3,37,84},

- Aug^{1,2} (2012^{1,2}). Collections: NMNH. **Holotype**. USA, Washington, Franklin County, Pasco. Floral records: HYDROPHYLLACEAE: *Phacelia*⁸⁴
- **274.** ‡ *Colletes delodontus* Viereck, **1903**. County records: Franklin¹¹⁵. Seasonality: May¹¹⁵ (1896¹¹⁵)
- 275. Colletes fulgidus Swenk, 1904. County records: Asotin^{1,2,4}, Benton^{1,2}, Gar-field⁴⁶, Grant¹²⁶, Jefferson^{1,2}, Klickitat^{1,2}, Okanogan^{1,2,3,4}, San Juan^{22,136}, Spo-kane^{1,2}, Walla Walla^{1,2}, Whitman^{6,126}, Yakima¹²⁶. Seasonality: May^{1,2}, Jun^{1,2,46}, Jul^{1,2}, Aug^{1,2,6}, Sep^{1,2}, Oct^{1,2} (2017¹³⁶). Collections: BBSL, PCYU, WSDA. Floral records: ASTERACEAE: Achillea millefolium^{3,59}, Anaphalis margaritacea⁵⁹, Crepis capillaris¹³⁶, Erigeron speciosus^{3,59}; CAPRIFOLIACEAE: Symphoricarpos albus¹³⁶; PLANTAGINACAE: Penstemon washingtonensis⁵⁹
- 275a. Colletes fulgidus fulgidus Swenk, 1904. County records: Benton^{1,2,3}, Clallam^{1,2,3}, Cowlitz^{1,2,3}, Ferry^{1,2,3}, Garfield^{1,2,3}, Grays Harbor^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2}, Okanogan⁵⁹, San Juan^{1,2}, Spokane^{1,2}, Walla Walla^{1,2,3}, Whitman^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2} (2012^{1,2}). Collections: AMNH, BBSL, PWRC, SEMC. Floral records: FABACEAE: Onobrychis viciifolia³
- **276.** *Colletes gypsicolens* Cockerell, **1897**. County records: Benton^{1,2,3}, Franklin^{1,2,3}, Yakima^{37,84}. Seasonality: Sep^{1,2,3}, Oct^{1,2} (1994^{1,2,3}). Collections: BBSL, SEMC
- **277.** *Colletes hyalinus* **Provancher, 1888.** County records: **Pacific**^{1,2,3}, Pend Oreille^{37,84}, San Juan¹³⁶. Seasonality: Jul^{1,2}, Aug^{1,2,3} (2017¹³⁶). Collections: BBSL. Floral records: ROSACEAE: *Potentilla anserina* ssp. *pacifica*¹³⁶
- **278.** ‡ *Colletes inaequalis* Say, 1837. County records: Chelan^{1,2,3,37,84}, **Douglas**^{1,2}. Seasonality: May^{1,2,3} (1960^{1,2}). Collections: SEMC
- **279.** *Colletes kincaidii* Cockerell, **1898**. County records: **Asotin**^{1,2,4}, **Jefferson**^{1,2}, San Juan¹³⁶, Spokane^{1,2,53}, Thurston^{1,2,3,53,84,115}, Whitman^{1,2,3,53}. Seasonality: May^{1,2,3,4}, Jun^{1,2}, Jul^{1,2,3,53} (2017¹³⁶). Collections: BBSL, NMNH, PCYU, SEMC, UCRC. **Holotype**. USA, Washington, Thurston County, Olympia; 5 July 1946; *Potentilla haliastris*; Type No. 4270, USNM ENT 00534565. Floral records: ASTERACEAE: *Cirsium arvense*¹³⁶; CAPRIFOLIACEAE: *Symphoricarpos albus*¹³⁶; CARYOPHYLLACEAE: *Spergularia macrotheca*¹³⁶; ROSACEAE: *Potentilla*
- **280.** *Colletes lutzi* **Timberlake, 1943.** County records: **Benton**^{1,2}, King⁵⁴, **Spokane**^{1,2,3}. Seasonality: May^{1,2}, Jun^{1,2,3}, Jul⁵⁴ (2015^{1,2}). Collections: BBSL
- **280a.** *Colletes lutzi interior* Timberlake, 1951. County records: Benton^{1,2,3}, King^{37,84}, Kittitas^{1,2,3,37}, Whitman^{37,84}. Seasonality: Jul^{1,2,3}, Sep^{1,2,3} (1995^{1,2,3}). Collections: BBSL, SEMC
- **281.** *Colletes nigrifrons* **Titus, 1900.** County records: **Chelan**³, Okanogan^{1,2,3,59}, **Skagit**³. Seasonality: Jul^{1,2}, Aug^{1,2,3} (2014³). Collections: BBSL, JRYA. Floral records: ASTERACEAE: *Achillea millefolium*⁵⁹; CELASTRACEAE: *Parnassia fimbriata*^{3,59}; CRASSULACEAE: *Sedum lanceolatum*⁵⁹; PLANTAGINACEAE: *Penstemon washingtonensis*⁵⁹; ROSACEAE: *Potentilla gracilis*^{3,59}
- **282.** ‡ *Colletes paniscus sculleni* Timberlake, 1951. County records: Benton^{1,2,3}, Pierce^{37,54,84}, Yakima^{1,2,3,37,84}. Seasonality: May^{1,2,3}, Jul^{1,2,3,54} (1949^{1,2,3}). Collections: SEMC

- **283.** *Colletes phaceliae* Cockerell, 1906. County records: Ferry^{1,2}, Franklin^{1,2,53}, Thurston⁵³, Walla Walla^{1,2,3}. Seasonality: Apr^{1,2}, May⁵³, Jun^{1,2,3,53}, Jul⁵³, Aug^{1,2} (2012^{1,2}). Collections: BBSL, PCYU, SEMC. Floral records: ONAGRACEAE: *Chamerion angustifolium* ssp. *angustifolium*⁵³
- **284.** *Colletes simulans* Cresson, 1868. County records: Thurston¹¹⁵, Yakima¹²⁶. Seasonality: Jul¹¹⁵ (1896¹¹⁵). [= Colletes tegularis Swenk, 1905]
- **284a.** *Colletes simulans nevadensis* Swenk, **1908**. County records: Benton^{1,2,3}, Thurston¹³³. Seasonality: Jul¹³³, Sep^{1,2,3} (2017¹³³). Collections: BBSL. Floral records: APIACEAE: *Daucus carota*¹³³; ASTERACEAE: *Senecio*³
- 285. Colletes slevini Cockerell, 1925. County records: Yakima^{37,84}

Hylaeinae: Hylaeini

Genus Hylaeus Fabricius

- **286.** *Hylaeus* (*Cephalylaeus*) *basalis* (Smith, 1853). County records: King^{1,2}, Kitsap^{1,2}, Okanogan^{1,2,3,59}, San Juan⁵, Skagit^{1,2}, Thurston^{1,2}. Seasonality: May^{1,2}, Jun^{1,2,3,5}, Jul^{1,2}, Aug¹ (2014¹). Collections: BBSL, UCMC. Floral records: ASTERACEAE: *Arnica sororia*⁵⁹; BRASSICACEAE: *Lepidium virginicum*⁵; HYDRO-PHYLLACEAE: *Phacelia leptosepala*⁵⁹; ROSACEAE: *Rosa nutkana* ssp. *nutkana*^{3,59}
- **287.** *Hylaeus* (*Hylaeus*) *annulatus* (**Linnaeus**, **1758**). County records: **Chelan**³, **Clallam**³, **King**^{1,2,3}, Okanogan^{1,2,3,59}, **Skagit**³. Seasonality: Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2014³). Collections: AMNH, BBSL, JRYA. [= *Hylaeus ellipticus* (Kirby, 1837)]. Floral records: ASTERACEAE: *Agoseris glauca* var. *dasycephala*⁵⁹, *Anaphalis margaritacea*⁵⁹, *Taraxacum officinale*^{3,59}; FABACEAE: *Trifolium repens*^{3,59}; GERANIACEAE: *Geranium viscosissimum* var. *viscosissimum*^{3,59}; HYDROPHYLLACEAE: *Phacelia leptosepala*⁵⁹; ROSACEAE: *Potentilla gracilis*^{3,59}, *Rosa nutkana* ssp. *nutkana*⁵⁹
- 288. Hylaeus (Hylaeus) conspicuus (Metz, 1911). County records: Klickitat^{1,2}, Spo-kane^{1,2}, Whitman⁵⁵. Seasonality: Aug^{1,2} (2011^{1,2}). Collections: BBSL, UCDC
- **289.** *Hylaeus* (*Hylaeus*) *granulatus* (Metz, 1911). County records: Whitman³². Seasonality: May³², Jun³², Jul³² (2013³²)
- **290.** †* *Hylaeus* (*Hylaeus*) *leptocephalus* (Morawitz, 1871). County records: Benton⁶, Douglas^{1,2,3}, Walla Walla^{1,2}, Yakima⁶. Seasonality: May⁶, Jun^{1,2}, Jul⁶, Aug^{1,2,3} (2023⁶). Collections: BBSL, iNaturalist, WSDA. [= *Hylaeus bisinuatus* Förster, 1871]
- **291.** Hylaeus (Hylaeus) mesillae (Cockerell, 1896). County records: Benton^{1,2,6}, Chelan⁶, Grant⁶, Okanogan⁶, Walla Walla^{6,71}, Yakima⁶. Seasonality: May⁶, Jun^{1,2,6}, Jul⁶, Aug⁶, Sep⁶ (2023⁶). Collections: BBSL, WSDA
- **291a.** *Hylaeus* (*Hylaeus*) *mesillae cressoni* (Cockerell, 1907). County records: Benton^{1,2,3}, Walla Walla^{1,2,3}. Seasonality: Apr^{1,2,3}, Jun^{1,2}, Sep^{1,2,3} (1997^{1,2,3}). Collections: BBSL
- **292.** *Hylaeus* (*Hylaeus*) *rudbeckiae* (Cockerell and Casad, 1895). County records: Chelan⁶, Klickitat^{1,2}, Okanogan^{1,2,3,6,59}, Spokane^{1,2}. Seasonality: Jun^{1,2}, Jul^{1,2,6}, Aug^{1,2,3,6}, Sep^{1,2} (2023⁶). Collections: BBSL, WSDA

- **293.** †‡ *Hylaeus* (*Hylaeus*) *verticalis* (**Cresson, 1869**). County records: **Kittitas**^{2,3}. Seasonality: Jul^{2,3} (1934^{2,3}). Collections: BBSL
- **294.** †‡ *Hylaeus (Paraprosopis) calvus* (Metz, 1911). County records: Chelan^{1,2,3}. Seasonality: Jul^{1,2,3} (1949^{1,2,3}). Collections: SEMC
- **295.** *Hylaeus* (*Paraprosopis*) *coloradensis* (Cockerell, 1896). County records: Clallam³, Kittitas³, San Juan⁵⁵, Whitman⁵⁵. Seasonality: Aug³ (2014³). Collections: CAS, JRYA, UCMC, UCRC
- **296.** *Hylaeus* (*Paraprosopis*) *nevadensis* (Cockerell, 1896). County records: Chelan³, King⁵⁵. Seasonality: Aug³ (2014³). Collections: JRYA
- **297.** † *Hylaeus (Paraprosopis) wootoni* (Cockerell, 1896). County records: Chelan^{1,2,3}, Clallam³, Ferry^{1,2,3}, Pierce³, Spokane^{1,2}, Yakima⁶. Seasonality: Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2,3,6} (2023⁶). Collections: BBSL, JRYA, SEMC, UCRC, WSDA
- **298.** ‡ *Hylaeus (Prosopis) affinis* (Smith, 1853). County records: Whitman⁸³. Seasonality: Jul⁸³ (1957⁸³). Collections: BBSL, SEMC, UCDC. Comments: Snelling (1966) indicates records from Pullman, WA in Garfield County; however, Pullman is located in Whitman County.
- **299.** *Hylaeus* (*Prosopis*) *episcopalis* (Cockerell, 1896). County records: Clallam³, King⁸³, Klickitat^{1,2,3}, Pacific^{1,2,3}, Spokane^{1,2}, Whitman³. Seasonality: May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2015^{1,2}). Collections: BBSL, JRYA, UCMC, UCRC
- **300.** Hylaeus (Prosopis) modestus citrinifrons Say, 1837. County record: Chelan^{1,2,3}, Clallam³, Cowlitz^{1,2,3}, Grays Harbor^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3}, Pierce^{1,2,3}, San Juan¹³⁶ Skagit³, Whatcom^{1,2,3}, Yakima^{1,2,3}. Seasonality: Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2017¹³⁶). Collections: BBSL, JRYA, SEMC, UCRC. Floral records: ASTERACEAE: Anaphalis margaritacea^{3,59}, Crepis capillaris¹³⁶, Taraxacum officinale^{3,59}; PLANTAGINACEAE: Penstemon confertus^{3,59}; ROSACEAE: Potentilla anserina ssp. pacifica¹³⁶, P. gracilis⁵⁹
- **301.** †* *Hylaeus* (*Spatulariella*) *punctatus* (Brullé, 1832). County records: Whitman⁷, Yakima⁶. Seasonality: Aug^{6,7} (2023⁶). Collections: WSDA

Halictidae: Halictinae: Halictini

Genus Agapostemon Guerin-Meneville

302. *Agapostemon* (*Agapostemon*) *femoratus* Crawford, 1901. County records: Adams^{1,2,7}, Asotin⁷, Benton^{1,2,3,6,7,71}, Chelan⁷, Douglas^{1,2}, Ferry^{1,2,3}, Franklin^{1,2,3,7}, Garfield^{1,2,3,46}, Grant^{1,2,7}, Island⁷, Kittitas^{1,2,3}, Mason⁷, Okanogan^{1,2,3,7,59}, Pacific^{1,2,3}, Spokane^{1,2,3,7}, Walla Walla^{1,2,3,7,71}, Whitman^{1,2,3,7}, Yakima⁷. Seasonality: Apr^{1,2,3,7}, May^{1,2,3,7}, Jun^{1,2,3,46,7}, Jul^{1,2,3,6,7}, Aug^{1,2,3,7}, Sep^{1,2,3,7}, Oct^{1,2,7}, Nov⁷ (2022⁶). Collections: BBSL, EMEC, iNaturalist, INHS, OSUC, SEMC, TAMU, WSDA, WSUC. Holotype. USA, Washington Territory. Conservation status: G5 – Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Arnica cordifolia*⁵⁹, *Erigeron speciosus*⁵⁹, *Senecio integerrimus*⁵⁹, *Rhaponticum repens*³; FABACEAE: *Astragalus*³; PLANTAGINACEAE: *Penstemon washingtonensis*⁵⁹

- 303. Agapostemon (Agapostemon) texanus Cresson, 1872. County records: Adams^{1,2,7}, Benton^{1,2,3,7,71}, Clallam^{1,2,3}, Douglas⁷, Franklin^{1,2,7}, Garfield^{1,2,3,10,46}, Grant⁷, Island^{1,2,7}, Jefferson^{1,2}, King^{1,2,3,7}, Kitsap^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2,3,4,7,59}, Pacific^{1,2,3}, Pierce^{1,2,7}, San Juan^{1,2,3,5,6,7,124}, Skagit^{7,10}, Spokane^{1,2,7}, Thurston^{1,2,3,7}, Walla Walla^{1,2,3,7,1}, Whatcom^{1,2,3,7}, Whitman^{2,3,7,8}, Yakima^{1,2,3,7}. Seasonality: Mar^{1,2}, Apr^{1,2,3,7}, May^{1,2,3,5,7}, Jun^{1,2,3,5,7,46}, Jul^{1,2,3,5,7}, Aug^{1,2,3,4,6,7}, Sep^{1,2,3,7}, Oct^{1,2,3,7} (2022^{1,2}). Collections: AMNH, BBSL, BugGuide, EMEC, FMNH, iNaturalist, OSUC, PWRC, SEMC, UCMC, WSDA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral Records: ASTERACEAE: Anaphalis margaritacea⁵, Haplopappus⁸, Helianthus anuus⁸; CONVOLVULACEAE: Convolvulus⁸; FABACEAE: Astragalus racemosus³, Medicago sativa⁸; ROSACEAE: Rosa nutkana⁵
- 303a. Agapostemon (Agapostemon) angelicus Cockerell, 1924/texanus Cresson, 1872. County records: Asotin^{1,2}, Benton^{1,2,3}, Chelan^{1,2,3}, Columbia^{1,2}, Franklin^{1,2}, Garfield^{1,2,3}, Jefferson^{1,2}, King^{1,2}, Kitsap^{1,2,3}, Kittitas^{1,2}, Klickitat^{1,2}, Pierce^{1,2,3}, San Juan^{6,136}, Spokane^{1,2,3}, Stevens^{1,2}, Thurston¹³³, Walla Walla^{1,2,3}, **Whatcom**^{1,2}, Whitman². Seasonality: Mar^{1,2}, Apr^{1,2}, May^{1,2,133}, Jun^{1,2,3,6,133}, Jul^{1,2,3,6,133}, Aug^{1,2,6}, Sep^{1,2}, Oct^{1,2} (2020¹³³). Collections: BBSL, SEMC, TAMU, WSDA. Floral records: ASPARAGACEAE: Camassia quamash¹³³; ASTERACE-AE: Crepis capillaris¹³³, Balsamorhiza deltoidea¹³³, Erigeron speciosus¹³³, Hypochaeris radicata^{133,136}, Leucanthemum vulgare¹³³, Microseris laciniata¹³³, Solidago missouriensis¹³³; BRASSICACEAE: Cakile maritima¹³⁶; CAPRIFOLIACEAE: Plectritis congesta¹³³; CONVOLVULACEAE: Calystegia soldanella¹³⁶; FABACEAE: Onobrychis arenaria³, Vicia satvia¹³³; HYPERICACEAE: Hypericum perforatum¹³³; MALVACEAE: Iliamna longisepala³; OROBANCHACEAE: Parentucellia viscosa¹³³; ONAGRACEAE: Clarkia amoena¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; ROSACEAE: Potentilla gracilis¹³³. Comments: Females of A. angelicus and A. texanus cannot be separated morphologically (Roberts 1973), so these uncertain records are combined here. No male A. angelicus have been recorded in Washington, suggesting these are most likely records of *A. texanus*.
- 304. Agapostemon (Agapostemon) virescens (Fabricius, 1775). County records: Benton^{1,2,3,7}, Chelan^{1,2}, Douglas³, Garfield⁷, Jefferson^{1,2}, King^{1,2}, Klickitat^{1,2}, Lewis^{1,2}, Okanogan^{1,2,3,7,59}, Skagit^{1,2}, Snohomish^{1,2}, Spokane^{1,2,3,7}, Stevens^{1,2}, Thurston^{1,2,133}, Walla Walla^{1,2,3,7,71}, Whitman^{1,2,3,6,7,8}, Yakima^{1,2,7}. Seasonality: Apr^{1,2,7}, May^{1,2,7,133}, Jun^{1,2,3,7,133}, Jul^{1,2,3,6,7,133}, Aug^{1,2,3,6,7}, Sep^{1,2,3,7}, Oct^{1,2,7}, Nov⁷ (2022^{1,2}). Collections: BBSL, BugGuide, iNaturalist, INHS, SEMC, WSDA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Balsamorhiza deltoidea¹³³, Cirsium vulgare⁸, Erigeron speciosus¹³³, Eriophyllum lanatum¹³³, Gaillardia aristata^{8,133}, Helianthus anuus⁸, Hypochaeris radicata¹³³, Microseris laciniata¹³³, Solidago simplex¹³³, Taraxacum officinale¹³³; BRASSICACEAE: Lepidium campestre¹³³, Sisymbrium altissimum^{3,59}; FABACEAE: Vicia⁸, V. hirsuta¹³³; GENTIANACEAE: Gentiana calycosa⁸; GERANIACEAE: Geranium dissectum¹³³;

HYPERICACEAE: Hypericum perforatum¹³³; IRIDACEAE: Sisyrinchium idahoense¹³³; ONAGRACEAE: Chamerion angustifolium¹³³, C. angustifolium ssp. angustifolium⁸, Clarkia amoena¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; ROSACEAE: Rosa⁸

Genus Halictus Latreille

- **305.** *Halictus* (*Nealictus*) *farinosus* Smith, **1853**. County records: Benton^{1,2,3,71}, Chelan^{1,2,3}, Douglas³, Grant^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, Pierce^{1,2,3}, Spokane^{1,2,3,6}, Stevens^{1,2}, Walla Walla^{1,2,3,71}, Whitman^{1,2,3,6,8,119}, Yakima^{1,2,3,6,119}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3,6}, Aug^{1,2,3,6}, Sep^{1,2}, Oct^{1,2} (2022^{1,2}). Collections: BBSL, BugGuide, EMEC, iNaturalist, OSUC, SEMC, WSDA, WSUC. Floral records: APIACEAE: *Lomatium*⁸; ASTERACEAE: *Achillea millefolium*⁵⁹, *Agoseris glauca* var. *dasycephala*^{3,59}, *Anaphalis margaritacea*⁵⁹, *Arnica cordifolia*^{3,59}, *Erigeron speciosus*⁵⁹, *Helianthus annuus*⁸, *Senecio triangularis*⁵⁹, *Solidago*⁸; BRASSI-CACEAE: *Brassica rapa*⁸, *Sisymbrium altissimum*⁸; ROSACEAE: *Malus domestica*⁸
- **306.** *Halictus* (*Odontalictus*) *ligatus* Say, 1837. County records: Adams^{1,2}, Benton^{1,2,3,71}, Chelan^{1,2,3}, Douglas^{1,2}, Grant^{1,2,3}, King^{1,2,3}, Klickitat^{1,2,3}, Okanogan^{1,2,3,59}, Spokane^{1,2,3,6}, Thurston^{1,2}, Walla Walla^{1,2,3,71}, Whitman^{1,2,6,8}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3,6}, Jul^{1,2,3,6}, Aug^{1,2,3,6}, Sep^{1,2}, Oct^{1,2} (2022^{1,2}). Collections: BBSL, BugGuide, FMNH, iNaturalist, WSDA, WSUC. Floral records: ASTERACEAE: *Anaphalis margaritacea*^{3,59}, *Cirsium arvense*⁸, *Haplopappus*⁸, *Helianthus annuus*⁸, *Solidago*⁸
- 307. Halictus (Protohalictus) rubicundus (Christ, 1791). [= Halictus lerouxii var. ruborum Cockerell, 1898]. County records: Benton^{1,2}, Chelan^{1,2,3}, Clallam^{1,2,3}, Clark^{1,2,3}, Cowlitz^{1,2,3}, Douglas^{1,2}, Garfield⁴⁶, Jefferson^{1,2,3}, King^{1,2,3,119}, Kitsap^{1,2,3}, Kittitas^{2,3}, Klickitat^{1,2}, Mason^{1,2,3}, Okanogan^{1,2,3,59}, Pacific^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3,6,22,124,136}, Skagit^{1,2,3,10,124}, Snohomish^{1,2,3}, Spokane^{1,2,3,6}, Stevens^{1,2,3}, Thurston^{1,2,3,6,133}, **Walla Walla**^{1,2,3}, **Whatcom**^{1,2,3,6}, Whitman^{1,2,6,8}. Seasonality: Feb^{1,2}, Mar^{1,2,3}, Apr^{1,2,133}, May^{1,2,133}, Jun^{1,2,3,6,133}, Jul^{1,2,3,6}, Aug^{1,2,3,6}, Sep^{1,2,3}, Oct^{1,2} (2022^{1,2}). Collections: AMNH, BBSL, BugGuide, FMNH, iNaturalist, JRYA, PWRC, TAMU, WSDA, WSUC. Floral records: APIACEAE: Lomatium⁸; AS-PARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Achillea millefolium⁵⁹, Cirsium arvense⁸, Erigeron speciosus⁵⁹, Hypochaeris radicata¹³⁶, Senecio triangularis^{3,59}, Taraxacum officinale^{8,133}; BRASSICACEAE: Sisymbrium altissimum^{3,59}; CAMPANULACAEAE: Campanula rotundifolia⁵⁹; CONVOLVULACEAE: Calystegia soldanella¹³⁶; CRASSULACEAE: Sedum lanceolatum⁵⁹; FABACEAE: Lupinus sericeus⁵⁹, Trifolium pratense³, T. repens^{8,59}; OROBANCHACEAE: Parentucellia viscosa¹³³; RANUNCULACEAE: Ranunculus⁸; ROSACEAE: Fragaria virginiana¹³³, Rubus bifrons¹³⁶
- 308. *Halictus* (*Seladonia*) *confusus* Smith, 1853. County records: Chelan³, Clallam³, Jefferson^{1,2}, King^{1,2,3}, Klickitat^{1,2}, Pacific^{1,2}, Pierce^{1,2,3}, San Juan^{5,6}, Spokane^{1,2}, Thurston^{1,2,3,133}, Whatcom^{1,2,3}, Whitman⁶. Seasonality: Apr¹³³,

- May^{1,2,5,133}, Jun^{1,2,3,6,133}, Jul^{1,2,3,6,133}, Aug^{1,2,3,6} (2020¹³³). Collections: AMNH, BBSL, BugGuide, EMEC, iNaturalist, JRYA, OSUC, PCYU, SEMC, WSDA. Floral records: ASPARAGACEAE: *Brodiaea coronaria*¹³³, *Camassia quamash*¹³³; ASTERACEAE: *Crepis capillaris*¹³³, *Hypochaeris radicata*¹³³, *Leucanthemum vulgare*¹³³; BRASSICACEAE: *Lepidium campestre*¹³³, *Teesdalia nudicaulis*¹³³; CARYOPHYLLACEAE: *Cerastium arvense*¹³³; CAPRIFOLIACEAE: *Plectritis congesta*¹³³; FABACEAE: *Lupinus bicolor*¹³³, *Trifolium repens*¹³³; IRIDACEAE: *Sisyrinchium idahoense*¹³³; LAMIACEAE: *Prunella vulgaris*¹³³; PLANTAGINACEAE: *Collinsia grandiflora*¹³³; POLEMONIACEAE: *Gilia capitata*¹³³; ROSACEAE: *Fragaria virginiana*¹³³; *Potentilla gracilis*¹³³
- **310.** † *Halictus* (*Seladonia*) *virgatellus* Cockerell, 1901. County records: Chelan³, Clallam³, Pierce^{1,2,3}, Stevens^{1,2}, Whatcom³. Seasonality: May^{1,2,3}, Jun^{1,2}, Jul^{1,2}, Aug³ (2014^{1,2,3}). Collections: BBSL, EMEC, JRYA

Genus Lasioglossum Curtis

- **311.** † *Lasioglossum* (*Dialictus*) *albipenne* (Robertson, 1890). County records: San Juan^{1,2,3}, Whitman⁷. Seasonality: May⁷, Jun⁷, Jul^{1,2,7}, Aug⁷, Sep⁷ (2011^{1,2}). Collections: PWRC, WSUC
- **312.** Lasioglossum (Dialictus) albohirtum (Crawford, 1907). County records: Adams⁷, Benton^{1,2,3,6,7,71}, Columbia^{1,2,4,38}, Grant⁷, Okanogan⁷, Pierce⁷, Walla Walla^{1,2,3,7,71}, Whitman⁷, Yakima^{7,38}. Seasonality: Apr⁷, May^{1,2,4,6,7,38}, Jun⁷, Jul^{1,2,7}, Aug^{1,2,3,7}, Sep^{1,2,3,7}, Oct^{1,2,7} (2022⁶). Collections: BBSL, PCYU, WSDA, WSUC. Floral records: FABACEAE: Melilotus officinalis³⁸; Ericameria nauseosa³⁸, Eriogonum³⁸
- **313.** † *Lasioglossum (Dialictus) brunneiventre* (Crawford, 1907). County records: Benton⁷, Walla Walla⁷, Whitman⁷, Yakima⁷. Seasonality: May⁷, Jun⁷, Jul⁷, Aug⁷, Sep⁷, Oct⁷ (2014⁷). Collections: WSUC
- **314.** † *Lasioglossum* (*Dialictus*) *cressonii* (Robertson, 1890). County records: King^{1,2,3}, Skagit⁷, Snohomish⁷, Stevens⁷, Whatcom^{6,7}, Whitman⁷. Seasonality:

- Apr⁷, Jun⁷, Jul^{1,2,3,6}, Aug⁶, Sep⁷, Oct⁷ (2011^{1,2,3}). Collections: AMNH, WSDA, WSUC
- 315. Lasioglossum (Dialictus) dashwoodi Gibbs, 2010. County records: Garfield³⁸, Klickitat⁷, Okanogan³⁸, Spokane⁷, Whitman⁷, Yakima⁷. Seasonality: May^{7,38}, Jun⁷, Jul⁷, Aug³⁸ (2022⁷). Collections: BBSL, PCYU, WSUC. Allotype. USA, Washington, Okanogan County, 1 mi E Muckamuck Hill, 48.601661°N, -119.765108°W; 9 August 2004; J Wilson. Paratype. USA, Washington, Okanogan County, 25 km W Clarkston, Hwy 12, 805 m; 29 May 2007; Gibbs and Sheffield
- **316.** † *Lasioglossum* (*Dialictus*) *diversopunctatum* (Ellis, 1914). County records: Benton⁷, Yakima⁷. Seasonality: Jun⁷, Jul⁷, Aug⁷ (2014⁷). Collections: WSUC
- 317. Lasioglossum (Dialictus) helianthi (Cockerell, 1916). County records: Adams⁷, Benton⁷, Grant⁷, Grays Harbor⁶, Okanogan⁷, Pierce¹²², Walla Walla⁷, Whitman⁷, Yakima⁷. Seasonality: Apr^{7,122}, May⁷, Jun⁷, Jul⁷, Aug^{6,7} (2020⁶). Collections: PCYU, WSDA, WSUC. [= Lasioglossum (Dialictus) imbrex Gibbs, 2010].
- **318.** † *Lasioglossum* (*Dialictus*) *hyalinum* (Crawford, 1907). County records: Adams⁷, Benton⁷, Chelan⁷, Grant⁷, Yakima⁷. Seasonality: Mar⁷, Apr⁷, May⁷, Jun⁷, Jul⁶, Aug⁷, Oct⁷ (2022⁶). Collections: WSDA, WSUC
- **319.** Lasioglossum (Dialictus) incompletum (Crawford, 1907). County records: Asotin⁷, Benton^{1,2,3,7,71}, Chelan⁷, Garfield^{1,2,3,4}, Grant⁷, Island⁷, Kittitas⁷, Klickitat⁷, San Juan^{1,2,3,124}, Spokane⁷, Walla Walla^{1,2,3,6,7,71}, Whitman⁷, Yakima⁷. Seasonality: Mar⁷, Apr⁷, May^{1,2,3,4,7}, Jun^{1,2,7}, Jul^{1,2,6,7}, Aug^{1,2,3,7}, Sep^{1,2,7}, Oct^{1,2,7} (2022⁶). Collections: BBSL, PCYU, PWRC, WSDA, WSUC
- **320.** Lasioglossum (Dialictus) knereri Gibbs, **2010**. County records: Asotin⁷, Clark⁷, Island⁷, King^{1,2,3}, Klickitat⁷, Okanogan^{1,2,3,38}, San Juan^{1,2,3,7,124}, Skagit⁷, Spokane⁷, Whitman⁷, Yakima⁷. Seasonality: Apr⁷, May^{1,2,7}, Jun^{1,2,3,7}, Jul^{1,2,38,7}, Aug^{1,2,3,7} (2011^{1,2,124}). Collections: BBSL, PWRC, WSUC. Floral records: BRASSICACE-AE: Smelowskia calycina³, CAMPANULACEAE: Campanula rotundifolia³⁸
- **321.** Lasioglossum (Dialictus) laevissimum (Smith, 1853). County records: Benton⁷, Clark⁷, Grant⁷, Grays Harbor⁶, Island⁷, King⁷, Okanogan⁷, Pacific⁷, Pierce^{6,7}, San Juan⁶, Skagit¹⁰, Snohomish⁷, Stevens⁷, Whatcom⁶, Whitman⁷. Seasonality: Apr⁷, May⁷, Jun^{6,7}, Jul^{6,7}, Aug^{6,7}, Sep^{6,7}, Oct⁷ (2021⁶). Collections: WSDA, WWUC, WSUC
- **322.** † *Lasioglossum* (*Dialictus*) *longicorne* (Crawford, 1907). County records: San Juan^{1,2}. Seasonality: May^{1,2} (2011^{1,2}). Collections: PWRC. Comments: This species plausibly occurs in Washington, but the specimens were not seen by the authors and its taxonomy is known to be uncertain (the taxon is part of the difficult *Lasioglossum viridatum* species complex.)
- **323.** Lasioglossum (Dialictus) macroprosopum Gibbs, **2010**. County records: Benton⁷, Kittitas⁷, Skagit¹⁰, Spokane⁷, Walla Walla⁷, Whitman⁷, Yakima⁷. Seasonality: Mar⁷, Apr⁷, May⁷, Jun⁷, Jul⁷, Aug⁷, Oct⁷ (2014⁷). Collections: WSUC, WWUC

- **324.** Lasioglossum (Dialictus) marinense (Michener, 1936). County records: Asotin⁷, Okanogan^{1,2,3,38,59}, San Juan^{1,2,3}, Stevens⁷. Seasonality: Jun^{1,2,3,7,38}, Jul^{1,2,7}, Aug^{1,2,3,38} (2011^{1,2}). Collections: BBSL, PCYU, PWRC, WSUC. Floral records: ASTERACEAE: Taraxacum officinale⁵⁹; ROSACEAE: Rosa nutkana ssp. nutkana³
- **325.** Lasioglossum (Dialictus) nevadense (Crawford, 1907). County records: Asotin⁷, Benton⁷, Chelan⁷, Clark⁷, Cowlitz⁷, Okanogan^{1,2,3,7,38,59}, San Juan^{1,2,3,124}, Spokane⁷, Walla Walla⁷, Whitman⁷, Yakima⁷. Seasonality: Apr⁷, May^{1,2,7}, Jun^{1,2,7,38}, Jul^{1,2,3,7,38}, Aug^{1,2,3,7} (2014⁷). Collections: BBSL, PCYU, PWRC, WSUC. Floral records: ASTERACEAE: Cirsium vulgare³
- **326.** † *Lasioglossum* (*Dialictus*) *nigroviride* (Graenicher, 1911). County records: Chelan³, Pend Oreille⁷. Seasonality: Jun⁷, Aug³ (2014³). Collections: JRYA, WSUC
- **327.** † *Lasioglossum* (*Dialictus*) *novascotiae* (Mitchell, 1960). County records: Benton⁷, Okanogan⁷, Spokane⁷, Stevens⁷, Walla Walla⁷, Whatcom⁷, Whitman⁷, Yakima⁷. Seasonality: Apr⁷, May⁷, Jun⁷, Jul⁷, Aug⁷, Sep⁷ (2013⁷). Collections: WSUC. Floral records: ASTERACEAE: *Taraxacum officinale*⁷; FABACEAE: *Medicago sativa*⁷
- **328.** Lasioglossum (Dialictus) pacatum (Sandhouse, 1924). County records: Okanogan^{1,2,3,59}, San Juan^{1,2,3,124}. Seasonality: May^{1,2}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2,3} (2011^{1,2,124}). Collections: BBSL, PWRC. Floral records: ASTERACEAE: *Taraxacum officinale*³
- **329.** † *Lasioglossum* (*Dialictus*) *pallidellum* (Ellis, 1914). County records: Benton⁷, Grant⁷. Seasonality: May⁷, Jul⁷, Oct⁷ (1995⁷). Collections: WSUC. Floral records: SARCOBATACEAE: *Sarcobatus vermiculatus*⁷
- **330.** Lasioglossum (Dialictus) perdifficile (Cockerell, 1895). County records: Benton^{1,2,3,71}, Walla Walla^{1,2,3,71}. Seasonality: Aug^{1,2}, Sep^{1,2,3} (1997^{1,2,3}). Collections: BBSL. Comments: Lasioglossum perdifficile belongs to a difficult complex that includes multiple undescribed species. Washington records of this species (originally described from New Mexico) are likely misidentifications or based on overinclusive species concepts. Several Washington specimens have been examined and they are believed to comprise two species, one of which may be a morphological variant within L. yukonae Gibbs, 2010, and the other of which is probably undescribed. Further taxonomic work is needed to resolve this complex.
- **331.** †‡ *Lasioglossum* (*Dialictus*) *platyparius* (Robertson, 1895). County records: Whitman⁷. Seasonality: May⁷ (1917⁷). Collections: WSUC. Comments: This social parasite is primarily distributed east of the Rocky Mountains. The Washington record, based on a single specimen collected at Wawawai in 1917, represents a significant and unexpected range extension both for the species and for socially parasitic *Dialictus* in general. But considering that Whitman County is one of the most well-collected regions in Washington and *L. platyparius* has not been re-collected in over 100 years, it is possible that the species is not permanently established in Washington, or it has been extirpated.
- 332. Lasioglossum (Dialictus) prasinogaster Gibbs, 2010. County records: Adams⁷, Benton⁷, Garfield³⁸, Franklin⁷, Grant⁷, Klickitat⁷, Okanogan^{1,2,3,59}, Spokane⁷,

- **Walla Walla**⁷, **Whitman**⁷, **Yakima**⁷. Seasonality: Apr⁷, May^{7,38}, Jun⁷, Jul^{1,2,3,7}, Aug⁷, Sep⁷ (2013⁷). Collections: BBSL, PCYU, WSUC. Floral records: ASTER-ACEAE: *Chrysothamnus*⁷, *Taraxacum*³⁸
- **333.** Lasioglossum (Dialictus) pruinosum (Robertson, 1892). County records: Benton^{1,2,3,7,71}, **Douglas**⁷, **Garfield**⁷, **Okanogan**⁷, Walla Walla^{1,2,3,7,71}, **Whitman**⁷, **Yakima**⁷. Seasonality: Apr⁷, May^{1,2,7}, Jun^{1,2,7}, Jul^{1,2,3,7}, Aug^{1,2,3,7}, Sep^{1,2,7}, Oct^{1,2} (2014⁷). Collections: BBSL, WSUC
- **334.** Lasioglossum (Dialictus) punctatoventre (Crawford, 1907). County records: Benton⁷, Okanogan^{1,2,3,59}, Spokane⁷, Whitman⁷. Seasonality: May⁷, Jun⁷, Jul^{1,2,3,7}, Aug^{1,2,7} (2011^{1,2}). Collections: BBSL, PWRC, WSUC. Floral records: ROSACEAE: Potentilla gracilis⁵⁹
- **335.** † *Lasioglossum* (*Dialictus*) *reasbeckae* Gibbs, **2010**. County records: Thurston^{1,2,4}. Seasonality: May⁷, Jun^{1,2,4} (2009^{1,2,4}). Collections: PCYU, WSUC. Comments: A specimen in WSUC labeled "Rock Creek" was probably collected in Spokane County, based on other specimens from the collector (Robin D. Gray). However, there are at least 33 Rock Creeks in Washington, so the exact location is unknown.
- **336.** Lasioglossum (Dialictus) ruidosense (Cockerell, 1897). County records: Asotin⁷, Benton⁷, Clallam³, Clark⁷, Grant⁷, Okanogan^{1,2,3,59}, Skagit⁷, Spokane⁷, Stevens⁷, Thurston^{1,2,4,7}, Whitman⁷. Seasonality: May⁷, Jun^{1,2,3,4,7}, Jul⁷, Aug^{1,2,3,7} (2014³). Collections: BBSL, JRYA, PCYU, WSUC. Floral records: ASTERACE-AE: Achillea millefolium³, Taraxacum officinale⁵⁹
- **337.** Lasioglossum (Dialictus) sandhousiellum Gibbs, **2010**. County records: Okanogan^{3,59}. Seasonality: Jul³ (2004^{3,59}). Floral records: ASTERACEAE: Achillea millefolium⁵⁹, Taraxacum officinale⁵⁹; POLEMONIACEAE: Ipomopsis aggregata ssp. aggregata⁵⁹
- 338. Lasioglossum (Dialictus) sedi (Sandhouse, 1924). County records: Asotin⁷, Chelan⁷, King^{1,2,3}, Klickitat^{1,2,3}, Okanogan^{1,2,3,38,59}, Whitman⁷, Yakima⁷. Seasonality: Apr^{1,2,3,7}, May⁷, Jun^{1,2,3,7,38}, Jul^{1,2,3,7,38}, Aug^{1,2} (2004^{1,2,38,59}). Collections: AMNH, BBSL, PCYU, WSUC. Floral records: ASTERACEAE: Erigeron speciosus^{3,59}; CAMPANULACEAE: Campanula rotundifolia^{3,38,59}; CELASTRACEAE: Parnassia fimbriata⁵⁹; CRASSULACEAE: Sedum lanceolatum⁵⁹, S. stenopetalum³⁸; HYDROPHYLLACEAE: Phacelia leptosepala³⁸; PLANTAGINACEAE: Penstemon davidsonii var. davidsonii⁵⁹; ROSACEAE: Rosa nutkana ssp. nutkana^{3,59}
- 339. Lasioglossum (Dialictus) tegulariforme (Crawford, 1907). County records: Benton^{1,2,3,71}, Grant⁷, Stevens¹²², Walla Walla^{1,2,3,71}, Whitman^{1,2}. Seasonality: May^{1,2}, Jun^{1,2}, Jul⁷, Aug^{1,2,3,122}, Sep^{1,2}, Oct^{1,2} (2011¹²²). Collections: BBSL, EMEC, FWSE, WSUC. Comments: Prior to 2010, L. helianthi was considered a synonym of L. tegulariforme (Gibbs 2010 [as L. imbrex]; Gardner and Gibbs 2022). As the specimen from Whitman County was collected prior to 2010 and has not been examined, it is possible that this specimen could be L. helianthi.
- **340.** Lasioglossum (Dialictus) tenax (Sandhouse, 1924). County records: Okanogan^{1,2,3,59}, Pierce^{1,2,4}, Thurston^{1,2,4}. Seasonality: May^{1,2,4}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,4}

- (2009^{1,2,4}). Collections: BBSL, PCYU. Floral records: ASTERACEAE: *Achillea millefolium*⁵⁹, *Cirsium vulgare*⁵⁹; CAMPANULACEAE: *Campanula rotundifolia*³. Comments: All Washington specimens of *L. tenax* that have been examined so far have turned out to be an undescribed species closely related to *L. tenax*. This species is distinguished from the true *L. tenax* by the smooth, shiny, sparsely punctate mesepisternum (contrasted with the dull, rugulose mesepisternum of *L. tenax*). It seems likely that the true *L. tenax* does not occur in Washington, and all published records actually correspond to this undescribed species. The undescribed species will be described in a forthcoming publication.
- **341.** Lasioglossum (Dialictus) zephyrus (Smith, 1853). County records: Benton⁷, Clark^{1,2,79}, Spokane⁷, Walla Walla⁷, Whitman^{1,2,7,79}, Yakima⁷. Seasonality: Apr⁷, May^{1,2,7,79}, Jun⁷, Jul^{1,2,7,79}, Aug⁷, Sep⁷, Oct⁷ (2014⁷). Collections: CAS, UCDC, WSUC
- **342.** † *Lasioglossum (Evylaeus) argemonis* (Cockerell, 1897). County records: Asotin⁷, Chelan⁷, Columbia⁷, Whitman⁷, Yakima⁷. Seasonality: Apr⁷, May⁷, Jul⁷ (1980⁷). Collections: WSUC
- **343.** † *Lasioglossum (Evylaeus) robustum* (Crawford, 1907). County records: Clark⁷. Seasonality: Jul⁷ (1970⁷). Collections: WSUC
- **344.** † *Lasioglossum* (*Hemihalictus*) *aspilurus* (Cockerell, 1925). County records: Benton⁷, Walla Walla⁷, Whitman⁷. Seasonality: Apr⁷, May⁷ (1973⁷). Collections: WSUC
- **345.** †* *Lasioglossum (Hemihalictus) buccale* (Pérez, 1903). County records: **Spo-kane**⁷. Seasonality: Jul⁷, Aug⁷ (1970⁷). Collections: WSUC
- **346.** † *Lasioglossum* (*Hemihalictus*) *glabriventre* (Crawford, 1907). County records: Benton⁷, Cowlitz⁷, Garfield⁷, Klickitat^{1,2}, Spokane^{1,2,7}, Walla Walla⁷, Whitman⁷, Yakima⁷. Seasonality: May^{1,2,7}, Jun^{1,2,7}, Jul^{1,2,7}, Aug^{1,2,7}, Sep^{1,2} (2015^{1,2}). Collections: BBSL, WSUC
- **347.** Lasioglossum (Hemihalictus) inconditum (Cockerell, 1916). County records: Asotin⁷, Clallam⁷, Cowlitz⁷, Island^{7,80}, King⁸⁰, Klickitat⁷, Lewis⁷, San Juan⁷, Skagit⁷, Spokane⁷, Stevens⁷, Thurston⁸⁰, Whitman⁸⁰, Yakima⁷. Seasonality: Apr⁷, May⁷, Jun⁷, Jul⁷, Aug⁷, Sep⁷ (1985⁷). Collections: WSUC
- **348.** Lasioglossum (Hemihalictus) kincaidii (Cockerell, 1898). County records: Benton⁷, Clark⁷, Grant⁷, Jefferson⁷, King⁷, Klickitat^{1,2}, Pacific⁷, Pierce^{1,2,4}, Spokane^{1,2}, Thurston¹¹⁹, Walla Walla^{1,2,7}, Whitman⁷, Yakima⁷. Seasonality: Apr^{1,2}, May^{1,2,7}, Jun^{1,2,7}, Jul^{1,2,4,7}, Aug⁷ (2015^{1,2}). Collections: BBSL, PCYU, WSUC. [= Halictus kincaidii Cockerell, 1898]
- **349.** Lasioglossum (Hemihalictus) ovaliceps (Cockerell, 1898). County records: Asotin⁷, Chelan⁷, Clark⁷, King^{1,2,3}, Lewis⁷, Okanogan⁷, San Juan²², Snohomish^{1,2,3}, Thurston^{1,2,7}, Whitman⁷, Yakima^{1,2,4,7}. Seasonality: Apr^{1,2,7}, May^{1,2,3,4,7}, Jun^{1,2,7}, Jul^{1,2,7}, Aug^{1,2,3,7}, Sep⁷, Oct^{1,2}, Nov^{1,2} (2022^{1,2}). Collections: iNaturalist, PCYU, WSUC. Floral records: ASTERACEAE: Hypochaeris radicata³
- **350.** † *Lasioglossum* (*Hemihalictus*) *sequoiae* (Michener, 1936). County records: San Juan^{1,2,3}. Seasonality: May^{1,2}, Jul^{1,2} (2011^{1,2}). Collections: PWRC

- **351.** †* *Lasioglossum* (*Hemihalictus*) *villosulum* (Kirby, 1802). County records: King⁷, Snohomish⁷. Seasonality: May⁷, Jun⁷, Jul⁷ (2019⁷). Collections: WSUC
- **352.** *Lasioglossum* (*Lasioglossum*) *anhypops* McGinley, **1986**. County record: Asotin⁸¹, Chelan^{3,7}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, Pierce^{1,2,3,81}, Stevens^{1,2}, Whitman⁸¹. Seasonality: May^{1,2,7}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2014^{1,2,3}). Collections: BBSL, JRYA, OSUC, WSUC. Floral records: ASTERACEAE: *Achillea millefolium*⁵⁹, *Anaphalis margaritacea*^{3,59}; FABACEAE: *Lupinus sericeus*^{3,59}
- **353.** Lasioglossum (Lasioglossum) athabascense (Sandhouse, 1933). County records: Asotin⁷, Island⁸¹, King⁸¹, Okanogan^{1,2,3,59}, Pend Oreille^{7,81}, San Juan^{1,2,3,124}, Stevens^{7,81}, Whitman⁷. Seasonality: May^{1,2}, Jun^{1,2,3,7}, Jul^{1,2,7}, Sep⁷ (2011^{1,2,124}). Collections: BBSL, PWRC, WSUC. Floral records: ROSACEAE: *Potentilla gracilis*^{3,59}
- **354.** *Lasioglossum* (*Lasioglossum*) *colatum* (Vachal, 1904). County records: Asotin⁸¹, King⁸¹, Skagit^{1,2,3}, Stevens⁸¹, Thurston⁸¹, Walla Walla^{7,81}, Whitman^{7,81}. Seasonality: May⁷, Jun⁷, Jul⁷, Aug^{1,2,7} (2013⁷). Collections: PWRC, WSUC
- **355.** Lasioglossum (Lasioglossum) egregium (Vachal, 1904). County records: Chelan⁷, Columbia⁷, Cowlitz⁷, Grant⁷, Island⁷, Klickitat^{1,2}, Lincoln⁷, Mason^{7,81}, Okanogan^{1,2,3,7,59,81}, Pend Oreille^{7,81}, San Juan^{1,2,3,124}, Spokane^{1,2,7,81}, Thurston¹³³, Walla Walla^{1,2,7}, Whatcom³, Whitman^{1,2,3,4,6,7,81}, Yakima⁷. Seasonality: Apr⁷, May^{1,2,7,133}, Jun^{1,2,6,7,133}, Jul^{1,2,3,4,6,7}, Aug^{3,6,7}, Sep^{1,2}, Oct^{1,2}, Nov⁷ (2018¹³³). Collections: BBSL, JRYA, PWRC, WSDA, WSUC. Floral records: ASTERACE-AE: Leucanthemum vulgare¹³³; PLUMBAGINACEAE: Armeria maritima¹³³
- **356.** Lasioglossum (Lasioglossum) heterorhinus (Cockerell, 1930). County records: Thurston¹³³. Seasonality: May¹³³, Jul¹³³ (2019¹³³). Floral records: ASPARAGACE-AE: Camassia quamash¹³³; ASTERACEAE: Erigeron speciosus¹³³
- **357.** Lasioglossum (Lasioglossum) mellipes (Crawford, 1907). County records: Douglas⁷, Island^{7,81}, King⁸¹, Kittitas^{2,3,81}, Klickitat^{1,2}, Pierce^{1,2,3}, San Juan^{1,2,124,136}, Stevens^{1,2}, Walla Walla^{1,2}. Seasonality: Apr^{1,2,7}, May^{1,2,7}, Jun^{1,2}, Jul^{1,2,3} (2017¹³⁶). Collections: BBSL, PWRC, WSUC
- 358. Lasioglossum (Lasioglossum) olympiae (Cockerell, 1898). County records: Asotin^{7,81}, Island^{7,81}, Klickitat^{1,2}, Pierce⁸¹, San Juan^{1,2,3,5,6,7,81,124,136}, Spokane^{1,2,81}, Thurston^{81,119,130,133}, Walla Walla⁸¹, Whitman^{2,6}, Yakima⁷. Seasonality: May^{1,2,5,133}, Jun^{1,2,6,7,133}, Jul^{1,2}, Aug^{6,7}, Sep^{1,2} (2020¹³³). Collections: BBSL, NMNH, PWRC, WSDA, WSUC. [= Halictus olympiae Cockerell, 1898]. Holotype. USA, Washington, Thurston County, Olympia; 26 June 1896; USNM Type No. 29420. [= Halictus olympiae var. subangustatus Crawford, 1906]. Floral records: APIACEAE: Heracleum sphondylium ssp. montanum⁵, Lomatium pugetensis¹³³; ASTERACEAE: Microseris laciniata¹³³; GROSSULARIACEAE: Ribes divaricatum¹³⁶; PLUM-BAGINACEAE: Armeria maritima¹³³; POLEMONIACEAE: Gilia capitata¹³³; ROSACEAE: Potentilla gracilis¹³³
- **359.** *Lasioglossum* (*Lasioglossum*) *pacificum* (Cockerell, 1898). County records: Clark^{7,81}, Island^{7,81}, **Jefferson**^{1,2}, King^{7,81,119}, Kitsap⁸¹, Pacific^{1,2,3,81}, Pierce^{1,2,4,81}, **San Juan**^{1,2,3,5,7,124}, Skagit¹⁰, Thurston^{81,119,133}, **Yakima**^{1,2,3}. Seasonality: Apr⁷, May^{1,2,5,7,133}, Jun^{1,2,133}, Jul^{1,2,3,5}, Aug^{1,2,3,4}, Sep⁷ (2020¹³³). Collections: BBSL,

- EMEC, PCYU, PWRC, SEMC, WSUC. [= Halictus pacificus Cockerell, 1898]. Lectotype. USA, Washington, Thurston County, Olympia; 24 June 1895. Floral records: APIACEAE: Heracleum sphondylium ssp. Montanum⁵; ASPARAGACEAE: Camassia quamash¹³³; ASTERACEAE: Crepis capillaris⁵, Microseris laciniata¹³³; BRASSICACEAE: Lepidium campestre¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³; FABACEAEA: Lupinus albicaulis¹³³, L. lepidus¹³³; LAMIACEAE: Prunella vulgaris¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; RANUNCULACEAE: Ranunculus californicus⁵; ROSACEAE: Potentilla gracilis¹³³; VIOLACEAE: Viola adunca¹³³
- **360.** Lasioglossum (Lasioglossum) pavonotus (Cockerell, 1925). County records: Grays Harbor^{1,2,3,81}, Pacific^{1,2,3,7,81}. Seasonality: Jun⁷, Jul^{1,2,3,7}, Aug⁷ (1976⁷). Collections: BBSL, SEMC, WSUC
- **361.** Lasioglossum (Lasioglossum) sisymbrii (Cockerell, 1895). County records: Asotin⁷, Benton^{1,2,7}, Chelan^{7,81}, Clark^{7,81}, Columbia⁷, Garfield^{7,81}, Grant^{1,2}, Island⁷, King^{1,2,81}, Kittitas², Klickitat^{1,2,81}, Okanogan^{1,2,3,59,81}, San Juan^{1,2,3,81,124}, Skagit^{1,2,3,81,124}, Spokane^{1,2,3,7,81}, Stevens⁸¹, Thurston^{81,119,133}, Walla Walla^{1,2,3,7,81}, Whitman^{1,2,3,6,7,81}, Yakima^{7,81}. Seasonality: Apr^{1,2,7}, May^{1,2,3,7,133}, Jun^{1,2,3,7,133}, Jul^{1,2,3,7}, Aug^{1,2,6,7}, Sep^{1,2,7}, Oct⁷ (2022^{1,2}). Collections: BBSL, BugGuide, iNaturalist, PWRC, TAMU, WSDA, WSUC. [= Halictus sisymbrii Cockerell, 1895]. Floral records: ASPARAGACEAE: Camassia quamash¹³³, Triteleia hyacinthina¹³³; ASTERACEAE: Balsamorhiza deltoidea¹³³, Crepis capillaris¹³³, Eriophyllum lanatum¹³³, Leucanthemum vulgare¹³³, Microseris laciniata¹³³; BRASSICACEAE: Sisymbrium altissimum^{3,59}; CAMPANULACEAE: Campanula rotundifolia¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³, Symphoricarpos albus¹³³; FABACEAE: Lupinus albicaulis¹³³; HYPERICACEAE: Hypericum perforatum¹³³; LAMIACEAE: Prunella vulgaris¹³³; ONAGRACEAE: Chamerion angustifolium¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; ROSACEAE: Potentilla gracilis¹³³
- **362.** Lasioglossum (Lasioglossum) titusi (Crawford, 1902). County records: Benton^{1,2}, Chelan⁷, Grays Harbor^{7,81}, Island^{7,81}, Klickitat^{1,2,81}, Pierce^{1,2,3,81}, **Spokane**^{1,2}, Thurston^{7,81,133}, Walla Walla^{1,2,3,81}, Whitman^{2,7,81}, **Yakima**⁷. Seasonality: Apr^{1,2,133}, May^{1,2,3,7,133}, Jun^{1,2,3,7,133}, Jul^{1,2,7,133}, Aug^{1,2}, Sep^{1,2}, Oct^{1,2} (2020¹³³). Collections: BBSL, SEMC, WSUC. Floral records: ASPARAGACEAE: Camassia quamash¹³³, Triteleia hyacinthina¹³³; ASTERACEAE: Achillea millefolium¹³³, Balsamorhiza deltoidea¹³³, Crepis capillaris¹³³, Erigeron speciosus¹³³, Eriophyllum lanatum¹³³, Hypochaeris radicata¹³³, Leucanthemum vulgare¹³³, Microseris laciniata¹³³, Solidago simplex¹³³, Taraxacum officinale¹³³; BRASSICACEAE: Teesdalia nudicaulis¹³³; CAPRIFOLIACEAE: Plectritis congesta¹³³; CARYOPHYLLACEAE: Cerastium arvense¹³³; PLUMBAGINACEAE: Armeria maritima¹³³; RANUNCULACEAE: Ranunculus occidentalis¹³³
- **363.** Lasioglossum (Lasioglossum) trizonatum (Cresson, 1874). County records: Adams⁸¹, Benton^{1,2,7}, San Juan^{1,2,3,124}, Stevens^{1,2}, Thurston¹¹⁹, Walla Walla⁷, Whatcom³, Whitman^{2,3,7,81}, Yakima^{7,81}. Seasonality: Apr^{1,2,7}, May^{1,2,7}, Jun^{1,2,7}, Jul⁷, Aug^{1,2,3,7} (2015^{1,2}). Collections: BBSL, JRYA, PWRC, WSUC. [= Halictus trizonatus Cresson, 1874]

- **364.** * *Lasioglossum (Leuchalictus) leucozonium* (Schrank, 1781). County records: Thurston¹¹⁹. [= *Halictus similis* Smith, 1853].
- 365. * Lasioglossum (Leuchalictus) zonulus (Smith, 1848). County records: Clallam³, Jefferson¹,2,3, King³,8¹, Kitsap²,13⁴, Klickitat¹,², Pierce¹,2,3,8¹, San Juan¹,2,3,6,12⁴, Skagit²,10,8¹, Spokane¹,², Thurston¹3³, Walla Walla¹,2,7, Whatcom⁶,8¹. Seasonality: May¹,2,6,13³, Jun¹,2,7,13³, Jul¹,2,6,7, Aug¹,2,3,6 (2020¹3³). Collections: BBSL, CUIC, JRYA, PWRC, WSDA, WSUC. Floral records: ASTEACEAE: Gaillardia aristata¹³³, Microseris laciniata¹³³; BRASSICACEAE: Lepidium campestre¹³³; LILI-ACEAE: Fritillaria affinis¹³³; ONAGRACEAE: Epilobium cilatum³; OROBAN-CHACEAE: Parentucellia viscosa¹³³; ROSACEAE: Potentilla gracilis¹³³
- **366.** Lasioglossum (Sphecodogastra) aberrans (Crawford, 1903). County records: Adams⁵⁷, Spokane^{1,2}. Seasonality: Jun^{1,2} (2015^{1,2}). Collections: BBSL
- **367.** † *Lasioglossum* (*Sphecodogastra*) *allonotus* (Cockerell, 1936). County records: Chelan⁷, Yakima⁷. Seasonality: Apr⁷, May⁷, Jun⁷, Sep⁷ (2008⁷). Collections: WSUC
- **368.** Lasioglossum (Sphecodogastra) comagenense (Knerer and Atwood, 1964). County records: Pierce^{1,2,4,80}, Thurston^{1,2,4,80}, Yakima^{1,2}. Seasonality: Apr^{1,2,4}, Jun^{1,2,4}, Jul^{1,2} (2009^{1,2,4}). Collections: INHS, PCYU
- **369.** Lasioglossum (Sphecodogastra) cooleyi (Crawford, 1906). County records: Jefferson^{1,2}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, San Juan^{1,2,124}, Skagit³, Spokane^{1,2}, Stevens^{1,2}, Walla Walla^{1,2}, Whitman⁶¹. Seasonality: Apr^{1,2,61}, May^{1,2}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2} (2015^{1,2}). Collections: BBSL, PWRC, UCMS. Floral records: ROSACEAE: Potentilla gracilis³
- **370.** † *Lasioglossum* (*Sphecodogastra*) *cordleyi* (Crawford, 1906). County records: Clark⁷. Seasonality: Jul⁷, Aug⁷ (1970⁷). Collections: WSUC
- 371. Lasioglossum (Sphecodogastra) lusorium (Cresson, 1872). County records: Benton^{57,80}, Grant⁷, Walla Walla^{1,2}, Yakima⁵⁷. Seasonality: May^{1,2}, Jun^{1,2,7}, Jul^{1,2}, Aug^{1,2} (2012^{1,2}). Collections: BBSL, WSUC. Comments: McGinley (2003) records this species on the Yakima River at Morgan's Ferry and places the location in Kittitas County; however, a review of historical maps indicates Morgan's Ferry is located in Yakima County.
- **372.** † *Lasioglossum* (*Sphecodogastra*) *occultum* (Vachal, 1904). [= *Halictus occultus* Vachal, 1904]. County records: **Skagit**^{1,2}, **Thurston**^{1,2,4}. Seasonality: Jun^{1,2,4}, Aug^{1,2} (2011^{1,2}). Collections: PWRC
- **373.** † *Lasioglossum* (*Sphecodogastra*) *orthocarpi* (Cockerell, 1936). County records: Island⁷, San Juan^{1,2,124}. Seasonality: May^{1,2}, Jul^{1,2}, Aug^{1,2,7} (2011^{1,2,124}). Collections: PWRC, WSUC

Genus Sphecodes Latreille

- **374.** *Sphecodes arvensiformis* Cockerell, **1904**. County records: Cowlitz^{1,2,3}, Thurston¹¹⁷, Walla Walla^{1,2,3}. Seasonality: Jun^{1,2,3,117}, Jul^{1,2,3} (1979^{1,2,3}). Collections: BBSL
- **375.** ‡ *Sphecodes columbiae* Cockerell, 1906. County records: Grant^{1,2,3,121}. Seasonality: Jul^{1,2,3,121} (1902^{1,2,3,121}). Collections: NMNH. Holotype. USA, Washington,

- Grant County, Grand Coulee; 12 July 1902; Type No. 29398, USNM ENT 00535232
- **376.** ‡ *Sphecodes hesperellus* Cockerell, 1904. County records: Thurston¹¹⁷. Seasonality: Jun¹¹⁷ (1895¹¹⁷)
- **377.** ‡ *Sphecodes kincaidii* Cockerell, **1898**. County records: Thurston^{1,2,3,117}. Seasonality: Jun^{1,2,3,117} (1895^{1,2,3}). Collections: NMNH. **Holotype**. USA, Washington, Thurston County, Olympia; 19 June 1895; Type No. 18975, USNM ENT 00535248
- **378.** ‡ *Sphecodes manni* Cockerell, 1913. County records: Whitman^{1,2,3,127}. Seasonality: Sep^{1,2,3,127} (1908^{1,2,3,127}). Collections: NMNH. **Holotype**. USA, Washington, Whitman County, Wawawai; 6 September 1908; WM Mann; Type No. 23322, USNM ENT 535259.
- **379.** ‡ *Sphecodes minor* Robertson, 1898. County records: Thurston¹¹⁷. Seasonality: Jun¹¹⁷ (1896¹¹⁷)
- **380.** ‡ *Sphecodes olympicus* Cockerell, **1904**. County records: **Pacific**^{1,2}, Thurston¹¹⁷. Seasonality: May¹¹⁷, Aug^{1,2} (1952^{1,2}). Collections: EMEC. Comments: Discover Life has synonymized *S. olympicus* with *S. confertus* without reference or explanation. We are not aware of any published work that that synonymizes these species and retain them as separate taxa in this checklist.
- **381.** ‡ *Sphecodes washingtoni* Cockerell, 1904. County records: Thurston¹¹⁷. Seasonality: Jun¹¹⁷ (1895¹¹⁷)

Nomiinae: Nominiini

Genus Nomia Latreille

382. *Nomia* (*Acunomia*) *melanderi* Cockerell, 1906. County records: Benton^{1,2}, Walla Walla^{1,2,3,78}, Whitman^{1,2,3}, Yakima¹²¹. Seasonality: Jun^{1,2}, Jul^{1,2,121}, Nov¹ (2022^{1,2}). Collections: AMNH, iNaturalist, NMNH, SEMC. Conservation status: G5 – Secure globally (NatureServe 2024)

Rophitinae

Genus Dufourea Lepeletier

- **383.** †‡ *Dufourea calochorti* (Cockerell, 1924). County records: Yakima^{1,2,3}. Seasonality: Jul^{1,2,3} (1925^{1,2,3}). Collections: BBSL
- **384.** *Dufourea campanulae* (Cockerell, 1897). County records: Clallam^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Pierce^{1,2,3}, Thurston^{1,2,118,133}. Seasonality: Jun^{1,2,118,133}, Jul^{1,2,3}, Aug^{1,2,3} (2018¹³³). Collections: BBSL, EMEC, JRYA, SEMC. [= *Halictoides campanulae* Cockerell, 1897]. Floral records: CAMPANULACEAE: *Campanula rotundifolia*¹³³, *C. scouleri*¹¹⁸
- **385.** † *Dufourea holocyanea* (Cockerell, 1925). County records: Asotin^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{2,3}, Stevens^{2,3}, Yakima^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{2,3}, Jul^{1,2,3} (2000^{1,2,3}). Collections: BBSL, SEMC

- **386.** *Dufourea maura* (Cresson, 1878). County records: Clallam³, Okanogan^{1,2,3,4,59}, Spokane^{1,2}. Seasonality: Jun^{1,2,3,4}, Jul^{1,2}, Aug³ (2015^{1,2}). Collections: BBSL, JRYA. Floral records: ASTERACEAE: *Achillea millefolium*^{3,59}
- **387.** *Dufourea trochantera* **Bohart, 1948.** County records: Clallam^{1,2,3,82}, Okanogan^{1,2,3,59}, **Yakima**^{1,2,3}. Seasonality: May^{1,2}, Jul^{1,2,3}, Aug^{1,2,3,82} (2007^{1,2}). Collections: BBSL, SEMC. Floral records: HYDROPHYLLACEAE: *Phacelia*⁸², *P. leptosepala*^{3,59}

Megachilidae: Megachilinae: Anthidiini

Genus Anthidiellum Cockerell

- **388.** † *Anthidiellum (Loyolanthidium) notatum* (Latreille, 1809). County records: Lincoln², Spokane². Seasonality: Jun², Aug² (2015²). Collections: BugGuide
- **389.** † *Anthidiellum (Loyolanthidium) robertsoni* (Cockerell, 1904). County records: Benton^{1,2}, Chelan^{1,2,3}, Klickitat^{1,2,3}. Seasonality: Jul^{1,2,3}, Aug^{1,2} (2022^{1,2}). Collections: BBSL. [= *Anthidiellum notatum robertsoni* (Cockerell, 1904)]

Genus Anthidium Fabricius

- **390.** † *Anthidium* (*Anthidium*) *atrifrons* Cresson, 1868. County records: Asotin³, Columbia¹³⁵, Whitman³, Yakima³. Seasonality: May³, Jun¹³⁵, Jul³ (2021¹³⁵). Collections: AMNH, BBSL, NMDG, SEMC. Conservation status: G5 Secure Globally (NatureServe 2024)
- **391.** †\$ *Anthidium* (*Anthidium*) *banningense* Cockerell, 1904. County records: Benton⁷, Garfield¹³⁵. Seasonality: May^{7,135} (2023¹³⁵). Collections: NMDG, WSUC. Conservation status: G3 Vulnerable globally (NatureServe 2024). Floral records: HYDROPHYLLACEAE: *Phacelia heterophylla*¹³⁵
- **392.** † *Anthidium* (*Anthidium*) *clypeodentatum* Swenk, **1914**. County records: Benton^{1,2}, Spokane^{1,2}. Seasonality: May^{1,2}, Jun^{1,2} (2015^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure Globally (NatureServe 2024)
- **393.** § *Anthidium* (*Anthidium*) *edwardsii* Cresson, 1878. County records: Grant^{41,91}. Collections: NMNH. [= *Anthidium depressum* H. F. Schwarz, 1927]. **Holotype**. USA, Washington, Grant County, Coulee City; USNM 40164. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **394.** *Anthidium* (*Anthidium*) *emarginatum* (**Say, 1824**). County records: **Adams**^{1,2,3}, **Benton**^{1,2}, **Jefferson**^{1,2}, **Lincoln**³, Whitman⁸. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2,3}, Aug^{1,2} (2015^{1,2}). Collections: BBSL, FMNH, UCRC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: HYDROPHYL-LACEAE: *Phacelia heterophylla*⁸
- **395.** †‡ *Anthidium (Anthidium) formosum* Cresson, 1878. County records: Spo-kane^{1,3}. Seasonality: Jul^{1,3} (1882^{1,3}). Collections: INHS. Conservation status: G4 Apparently Secure Globally (NatureServe 2024)
- 396. †* Anthidium (Anthidium) manicatum (Linnaeus, 1758). County records: Benton^{1,2}, Chelan^{1,2,3}, Clallam^{1,2,3}, Clark^{1,2,3}, Douglas^{1,2,3}, Grant^{1,2,3}, Jefferson^{1,2,3},

- King^{1,2,3}, Kittitas^{1,2}, Lewis^{1,2,3}, San Juan^{1,2,5,6}, Skamania^{1,2}, Snohomish^{1,2,6}, Spokane^{1,2,3}, Thurston^{1,2,3,6}, Walla Walla^{1,2}, Whatcom^{1,2,3}, Yakima^{1,2,3}. Seasonality: May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3,5,6}, Aug^{1,2,3,6}, Sep^{1,2,3} (2022^{1,2}). Collections: AMNH, Bug-Guide, iNaturalist, WSDA. Conservation status: G5 – Secure globally (Nature-Serve 2024)
- **397.** *Anthidium* (*Anthidium*) *mormonum* Cresson, 1878. County records: Kittitas^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2,59}, Spokane^{1,2}. Seasonality: May^{1,2}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2} (2015^{1,2}). Collections: BBSL, INHS, SEMC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Erigeron nivalis*⁵⁹; HYDROPHYLLACEAE: *Phacelia leptosepala*⁵⁹
- **398.** Anthidium (Anthidium) tenuiflorae Cockerell, **1907**. County records: Kittitas^{1,2,3}, Okanogan^{1,2,4,59}, San Juan^{1,2,3,5,6,124}, Skagit³. Seasonality: Jun⁵, Jul^{1,2,5,6}, Aug^{1,2,3,4} (2017⁶). Collections: BBSL, JRYA, PWRC, SEMC, WSDA. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: CRASSULACEAE: Sedum lanceolatum⁵⁹; HYDROPHYLLACEAE: Phacelia leptosepala⁵⁹; LAMIACEAE: Micromeria douglasii⁵; ROSACEAE: Rubus ulmifolius⁵
- **399.** *Anthidium* (*Anthidium*) *utahense* Swenk, **1914**. County records: **Grant**^{1,3}, **Klickitat**^{1,2}, **Spokane**^{1,2}, **Walla Walla**^{1,2,3}, Whitman^{8,41,91,98}, **Yakima**^{1,2,3}. Seasonality: Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2} (2015^{1,2}). Collections: AMNH, BBSL, INHS, NMNH, SEMC, WSUC. [= *Anthidium sagittipictum* Swenk, 1914]. **Holotype**. USA, Washington, Whitman County, Pullman. Conservation status: G5 Secure globally (NatureServe 2024). Floral Records: FABACEAE: *Vicia villosa*⁸
- **400.** †* *Anthidium (Proanthidium) oblongatum* (Illiger, 1806). County records: Clark^{1,2}, King^{1,2,3}, Pierce^{1,2}, Snohomish^{1,2}, Spokane^{1,2}. Seasonality: May^{1,2}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2}, Sep^{1,2} (2022^{1,2}). Collections: BugGuide, iNaturalist. Conservation status: G5 Secure globally (NatureServe 2024)

Genus Dianthidium Cockerell

- **401.** *Dianthidium* (*Dianthidium*) *curvatum* (**Smith, 1854**). County records: **Garfield**^{1,2,3.} Seasonality: Jul^{1,2} (1998^{1,2}). Collections: BBSL. Floral records: ASTERACEAE: *Carthamus tinctorius*³
- **401a.** † *Dianthidium* (*Dianthidium*) *curvatum sayi* Cockerell, 1907. County records: Benton^{1,2,3}, Garfield^{1,2,3}, Whitman^{1,2,3}. Seasonality: Jul^{1,2,3}, Aug^{1,2}, Sep^{2,3} (2021^{1,2}). Collections: BBSL, iNaturalist, INHS
- **402.** *Dianthidium* (*Dianthidium*) *heterulkei* Schwarz, **1940**. County records: Okanogan^{1,2,3,59}. Seasonality: Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. Floral records: ASTERACEAE: *Erigeron speciosus*^{3,59}
- **403.** *Dianthidium* (*Dianthidium*) *parvum* (Cresson, 1878). County records: Thurston¹³³. Seasonality: Jul¹³³ (2018¹³³). Floral records: ASTERACEAE: Crepis capillaris¹³³, Erigeron speciosus¹³³, Hieracium scouleri¹³³, Solidago missouriensis¹³³
- **404.** † *Dianthidium* (*Dianthidium*) *plenum* Timberlake, **1943**. County records: Klickitat^{1,2,3}. Seasonality: Jul^{1,2,3} (2010^{1,2,3}). Collections: BBSL

- **405.** *Dianthidium* (*Dianthidium*) *pudicum* (Cresson, 1879). County records: Benton^{1,2,3,71}, Spokane⁷, Walla Walla^{1,2}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2}, Aug^{1,2,3,7}, Sep^{1,2} (2023⁷). Collections: BBSL
- **406.** *Dianthidium* (*Dianthidium*) *subparvum* Swenk, **1914**. County records: Chelan^{1,2,3}, Okanogan^{1,2,3,59}, Spokane^{1,2}, Thurston¹³³, Walla Walla^{1,2,3,71}, Whitman⁹¹. Seasonality: Jul^{1,2,3,133}, Aug^{1,2,3}, Sep^{1,2,3} (2019¹³³). Collections: BBSL. **Holotype**. USA, Washington, Whitman County, Pullman. Floral records: ASTERACEAE: *Crepis capillaris*¹³³, *Erigeron speciosus*¹³³
- **407.** *Dianthidium* (*Dianthidium*) *ulkei* (Cresson, 1878). County records: Klickitat^{1,2}, Okanogan^{1,2,3,59}, Pierce⁹¹, Spokane^{1,2}. Seasonality: Jul^{1,2}, Aug^{1,2,3}, Sep^{1,2} (2014^{1,2}). Collections: BBSL, CAS. [= *Dianthidium ulkei reductum* Timberlake, 1943]. **Holotype**. USA, Washington, Pierce County, Longmire, Mt. Rainier National Park.

Genus Stelis Panzer

- **408.** † *Stelis* (*Dolichostelis*) *laticincta* Cresson, 1878. County records: Benton^{1,2}, Clark^{1,2}, Douglas^{1,2}, Klickitat^{1,2}. Seasonality: Jul^{1,2}, Aug^{1,2} (2022^{1,2}). Collections: BugGuide, iNaturalist
- **409.** † *Stelis* (*Stelis*) *calliphorina* (Cockerell, 1911). County records: Spokane^{1,2}, Whitman^{2,3}. Seasonality: May^{2,3}, Jul^{1,2} (2014^{1,2}). Collections: BBSL
- **410.** † *Stelis* (*Stelis*) *callura* Cockerell, 1925. County records: Adams^{1,2,3}, Benton^{1,2,3}, Spokane^{1,2}, Whitman^{2,3}. Seasonality: May^{1,2,3}, Jun^{2,3} (2016^{1,2}). Collections: BBSL
- **411.** †‡ *Stelis* (*Stelis*) *foederalis* Smith, **1854**. County records: **Spokane**^{1,2,3}. Seasonality: Jul^{1,2,3} (1963^{1,2,3}). Collections: BBSL
- **412.** † *Stelis* (*Stelis*) *holocyanea* (Cockerell, 1925). County records: **Spokane**^{1,2}. Seasonality: May^{1,2}, Jul^{1,2,3} (2015^{1,2}). Collections: BBSL
- **413.** † *Stelis* (*Stelis*) *lateralis* Cresson, 1864. County records: Spokane^{1,2}, Walla Walla^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2} (2015^{1,2}). Collections: BBSL
- **414.** *Stelis* (*Stelis*) *montana* Cresson, **1864**. County records: Benton^{1,2,3}, Chelan^{1,2,3}, Kittitas^{1,2,3}, Okanogan^{1,2,3,59}, Stevens³, Thurston^{1,2,3}, Walla Walla³, Yakima^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL, SEMC. Floral records: ASTERACEAE: *Erigeron speciosus*^{3,59}; FABACEAE: *Lupinus sericeus*^{3,59}
- **415.** † *Stelis* (*Stelis*) *monticola* Cresson, 1878. County records: King^{1,2,3}, San Juan^{1,2,3}, Spokane^{1,2}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jul³ (2015^{1,2}). Collections: AMNH, BBSL
- **416.** †‡ *Stelis* (*Stelis*) *nitida* Cresson, 1878. County records: King^{1,2,3}. Seasonality: May^{1,2}, Jun^{1,2,3} (1928^{1,2,3}). Collections: BBSL. Floral records: ASTERACEAE: *Hypochaeris*³
- **417.** †‡ *Stelis* (*Stelis*) *occidentalis* Parker and Griswold, **2013**. County records: **Spokane**^{1,2,3}. Seasonality: Jun^{1,2,3} (1969^{1,2,3}). Collections: BBSL
- **418.** † *Stelis* (*Stelis*) *pavonina* (Cockerell, 1908). County records: Lincoln^{2,3}, **Spokane**^{1,2}. Seasonality: May^{1,2,3}, Jun^{1,2}, Jul^{1,2} (2015^{1,2}). Collections: BBSL

- **419.** ‡ *Stelis* (*Stelis*) *rubi* Cockerell, 1898. County records: King^{1,2,98}, Thurston⁹⁸. Seasonality: May^{1,2,98}, Jun⁹⁸ (1897^{1,2}). Collections: NMNH. **Holotype**. USA, Washington, King County, Seattle; 11 May 1897; 18979 USNM, USNM ENT 00537080. Floral records: ROSACEAE: *Rubus ursinus*⁹⁸. Comments: Discover Life has synonymized *S. rubi* with *S. monticola* without reference or explanation. We are not aware of any published work that that synonymizes these species and retain them as separate taxa in this checklist.
- **420.** *Stelis* (*Stelis*) *subcaerulea* Cresson, 1878. County records: Okanogan^{1,2,3,59}, Whitman⁸. Seasonality: Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL, WSUC. Floral records: ASTERACEAE: *Achillea millefolium*⁸, *Eriophyllum lanatum*⁸; CRASSULACEAE: *Sedum lanceolatum*^{3,59}
- **421.** *Stelis* (*Stelis*) *subemarginata* Cresson, **1878**. County records: **Benton**^{1,2,3}, Okanogan^{1,2,3,59}, **Spokane**^{1,2}, **Walla Walla**^{1,2,3}, **Whitman**^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2,3}, Aug^{1,2,3} (2015^{1,2}). Collections: BBSL. Floral records: ASTERACEAE: *Anaphalis margaritacea*^{3,59}, *Erigeron corymbosus*^{3,59}
- **422.** † *Stelis subglauca* (Cockerell, 1925). County records: Spokane^{1,2}. Seasonality: Jul^{1,2} (2011^{1,2}). Collections: BBSL. Comments: Discover Life has synonymized *S. subglauca* with *S. foederalis* without reference or explanation. We are not aware of any published work that that synonymizes these species and retain them as separate taxa in this checklist.

Dioxyini

Genus Dioxys Lepeletier and Serville

- **423.** † *Dioxys aurifuscus* (Titus, 1901). County records: Grant¹. Seasonality: Jun¹ (2022¹). Collections: iNaturalist
- **424.** † *Dioxys pacificus* Cockerell, 1916. County records: Benton^{1,2}. Seasonality: May^{1,2} (2014^{1,2}). Collections: BBSL
- **425.** † *Dioxys pomonae* Cockerell, **1910**. County records: **Pierce**³, **Spokane**^{1,2}. Seasonality: Jun^{1,2,3} (2014^{1,2}). Collections: BBSL
- **426.** † *Dioxys productus* (Cresson, 1879). County records: Spokane^{1,2}. Seasonality: Jul^{1,2} (2015^{1,2}). Collections: BBSL

Megachilini

Genus Coelioxys Latreille

- **427.** *Coelioxys* (*Boreocoelioxys*) *moestus* Cresson, 1864. County records: Okanogan^{1,2,59}, Thurston^{1,2}. Seasonality: Jun^{1,2}, Aug^{1,2} (2004^{1,2,59}). Collections: BBSL, UCMC. Floral records: ASTERACEAE: *Erigeron speciosus*⁵⁹
- **428.** *Coelioxys (Boreocoelioxys) octodentatus* **Say, 1824.** County records: **Kittitas**^{1,2}, Walla Walla^{1,2,71}, **Yakima**^{1,2}. Seasonality: Jun^{1,2}, Jul^{1,2}, Sep^{1,2} (2012^{1,2}). Collections: AMNH, BBSL, MCZ, SEMC

- **429.** *Coelioxys* (*Boreocoelioxys*) *rufitarsis* Smith, 1854. County records: Benton^{1,2,3,71}, Chelan³, Clallam³, Ferry^{1,2}, Franklin³, Jefferson^{1,2}, King^{1,2}, Kittitas^{2,3}, Lewis^{1,2,4}, Okanogan^{1,2}, San Juan^{1,2,3,5,22,124,136}, Thurston¹³³, Walla Walla^{1,2,3,71}, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: May^{1,2,3}, Jun^{1,2,3,133}, Jul^{1,2,3,5,133}, Aug^{1,2,3}, Sep^{1,2,3} (2021^{1,2}). Collections: AMNH, BBSL, CUIC, FMNH, iNaturalist, JRYA, PCYU, PWRC, RUAC, SEMC. Host records: *Megachile perihirta* Cockerell¹³⁴. Floral records: APOCYNACEAE: *Apocynum androsaemifolium*¹³³; ASTERACEAE: *Crepis capillaris*^{133,136}, *Hypochaeris radicata*⁵, *Leucanthemum vulgare*¹³³, *Microseris laciniata*¹³³; ONAGRACEAE: *Clarkia amoena*¹³³
- **430.** *Coelioxys* (*Coelioxys*) *sodalis* Cresson, 1878. County records: Clallam³, Okanogan^{1,2,3,59}, Thurston^{52,133}. Seasonality: Jun^{52,133}, Aug^{1,2,3} (2018¹³³). Collections: AMNH, BBSL, JRYA. **Holotype**. USA, Washington, Thurston County, Olympia; 9–24 June 1895, 26 June 1896; T Kincaid. Floral records: ASTERACEAE: *Agoseris glauca* var. *dasycephala*^{3,59}, *Eriophyllum lanatum*¹³³, *Leucanthemum vulgare*¹³³
- **431.** † *Coelioxys (Xerocoelioxys) edita* Cresson, **1872**. County records: **Asotin**^{1,2,4}. Seasonality: May^{1,2,4} (2007^{1,2,4}). Collections: PCYU
- **432.** *Coelioxys* (*Xerocoelioxys*) *grindeliae* Cockerell, **1900**. County records: Benton^{1,2,3,71}. Seasonality: Aug^{1,2,3} (1997^{1,2,3}). Collections: BBSL
- **433.** † *Coelioxys (Xerocoelioxys) mesae* Cockerell, **1921**. County records: **Grant**^{1,2,4}. Collections: PCYU
- **434.** *Coelioxys* (*Xerocoelioxys*) *serricaudatus* J. R. Baker, 1975. County records: Spokane⁷, Whitman^{58,90}. Seasonality: May⁷, Jun^{58,90} (2024⁷). Paratype. USA, Washington, Whitman County, Palouse; 26 June 1961; RW Dawson.

Genus Megachile Latreille

- **435.** *Megachile* (*Argyropile*) *parallela* **Smith, 1853**. County records: **Asotin**^{1,2}, **Benton**^{1,2,3}, Walla Walla^{1,2,3,25}, Whitman^{2,3,8,25,71}, Yakima²⁵. Seasonality: Jun^{1,2,3,25}, Jul^{2,3}, Aug^{1,2,3}, Sep^{1,2,3} (2015^{1,2}). Collections: BBSL, iNaturalist, INHS, TAMU, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Helianthus annuus*⁸
- **436.** *Megachile* (*Chelostomoides*) *angelarum* Cockerell, **1902**. County records: Benton^{1,2,3}, Chelan^{1,2}, King^{1,2}, Thurston⁶, Walla Walla^{1,2,3,26}, Whitman^{1,2}. Seasonality: Jun^{1,2,3,26}, Jul^{1,2}, Aug^{1,2,6} (2020^{1,2}). Collections: BBSL, iNaturalist, TAMU, WSDA. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Rhaponticum repens*³
- **437.** * *Megachile (Eutricharaea) apicalis* Spinola, 1808. County records: Benton^{1,2,3}, Columbia^{1,2,4}, Kittitas^{1,2}, Spokane^{1,2,3}, Walla Walla^{1,2,3,71}, Whitman^{2,3}. Seasonality: Jun^{1,2,3}, Jul^{1,2}, Aug^{1,2,3}, Sep^{1,2} (2021^{1,2}). Collections: BBSL, iNaturalist, PCYU. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Rhaponticum repens*³
- **438.** †*‡ *Megachile (Eutricharaea) concinna* **Smith, 1879**. County records: **Yakima**^{1,2,3}. Seasonality: Feb^{1,2,3} (1969^{1,2,3}). Collections: BBSL

- **439.** * *Megachile* (*Eutricharaea*) *rotundata* (Fabricius, 1787). County records: Benton^{1,2,3,128}, **Chelan**^{1,2,3}, **King**^{1,2}, **Spokane**^{1,2,3}, **Walla Walla**^{1,2,3}, Yakima^{2,128}. Seasonality: Feb², Jun^{1,2,3}, Jul^{1,2,3} (2020^{1,2}). Collections: BBSL, BugGuide, iNaturalist, TAMU. Conservation status: G5 Secure globally (NatureServe 2024)
- **440.** *Megachile* (*Litomegachile*) *brevis* Say, 1837. County records: Benton⁷¹, Garfield⁴⁶, Skamania^{1,2}, Spokane^{1,2,3}, Thurston¹³³, Walla Walla⁷¹, Whitman⁸, Yakima^{1,2,27}. Seasonality: Jun^{1,2,46,133}, Jul^{1,2,3,133} (2020¹³³). Collections: BBSL, BugGuide, MSU, MCZ, UCRC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: APOCYNACEAE: *Apocynum androsaemifolium*¹³³; ASTERACEAE: *Gaillardia aristata*¹³³, *Helianthus annuus*⁸, *Solidago missouriensis*¹³³; HYPERICACEAE: *Hypericum perforatum*¹³³; ONAGRACEAE: *Clarkia amoena*¹³³
- **441.** *Megachile* (*Litomegachile*) *cleomis* Cockerell, 1900. County records: Grant⁷, Whitman⁷. Yakima⁷ Seasonality: May⁷, Jul⁷, Sep⁷ (1900⁷). Collections: WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Comments: Records from Grant and Yakima counties during May and September were males identified by Mitchell. *Megachile cleomis* was raised to full species from a subspecies of *M. texana* based on DNA barcodes with no morphological diagnosis (Sheffield and Genaro 2013). Mitchell (1935b) indicates that males of *M. cleomis* and *M. lippiae* are indistinguishable. As there is no way to confirm the identification of these males, it is possible they may represent records of *M. lippiae*.
- 441a. Megachile (Litomegachile) cleomis Cockerell, 1900/lippiae Cockerell, 1900. County records: Chelan^{1,2}, Garfield⁴⁶, Walla Walla^{1,2,3}, Whatcom^{1,2,3}, Whitman^{1,2,3}. Seasonality: May^{1,2}, Jun^{1,2}, Jul^{1,2,3} (1995^{1,2}). Collections: BBSL, SEMC, TAMU. Floral records: FABACEAE: Lupinus sericeus³. Comments: These records were originally identified as M. texana. Sheffield et al. (2011) and Sheffield and Genaro (2013) raised M. lippiae and M. cleomis, respectively, to full species from subspecies of M. texana, which has a distinctly eastern distribution compared to M. cleomis. While Sheffield and Genaro (2013) don't describe where the east/west dividing line is located, it is highly likely that Washington is far enough west for these records to not be M. texana. Since these specimens have not been physically examined, it is unclear whether these records are actually M. lippiae or M. cleomis.
- **442.** *Megachile* (*Litomegachile*) *coquilletti* Cockerell, 1915. County records: Benton^{1,2,3}, Chelan^{1,2,3}, Walla Walla^{1,2,3}, Whitman²⁷, Yakima²⁷. Seasonality: Jul^{1,2,3} (1998^{1,2}). Collections: BBSL, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **443.** *Megachile* (*Litomegachile*) *mendica* Cresson, 1878. County records: Kittitas^{1,3}, Whitman^{2,3}. Seasonality: Jun^{1,2,3} (2003^{2,3}). Collections: AMNH, BBSL. Conservation status: G5 Secure globally (NatureServe 2024)
- **444.** *Megachile* (*Litomegachile*) *onobrychidis* Cockerell, 1908. County records: Benton^{1,2,3}, Clark^{1,2}, Ferry^{1,2,3}, Garfield^{1,2,3,46}, Grant^{1,2,3}, Klickitat^{1,2}, Spokane^{1,2}, Walla Walla^{1,2,3}, Whitman^{1,3,6,27}, Yakima^{1,2,3}. Seasonality: May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3,6}, Sep^{1,2}, Oct^{1,2} (2014^{1,2}). Collections: AMNH, BBSL, SEMC, WSDA. [= *Megachile*

- brevis onobrychidis Cockerell, 1908]. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: Rhaponticum repens³
- **445.** \$ Megachile (Litomegachile) snowi Mitchell, 1927. County records: Whitman³². Seasonality: Jul³² (2013³²). Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **446.** *Megachile* (*Megachile*) *centuncularis* (Linnaeus, 1758). County records: Okanogan^{1,2,3,59}, Pierce²⁴, Whitman²⁴. Seasonality: Jul²⁴, Aug^{1,2,3} (2012^{1,2}). Collections: BBSL. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Erigeron speciosus*^{3,59}
- **447.** ‡ *Megachile* (*Megachile*) *lapponica* Thomson, 1872. County Records: Pend Oreille⁹⁴. Seasonality: Jul⁹⁴ (1931⁹⁴). [= *Megachile nivalis* Friese, 1903]. Conservation status: G5 Secure globally (NatureServe 2024)
- **448.** *Megachile* (*Megachile*) *montivaga* Cresson, 1878. County records: Benton^{1,2,3,71}, Grant^{1,2}, Kittitas^{1,2}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, Pierce^{1,2,3,24}, Spokane^{1,2}, Thurston²⁴, Wahkiakum^{1,2}, Walla Walla^{1,2,3,71}, Whitman^{2,3,24}, Yakima²⁴. Seasonality: May^{1,2}, Jun^{1,2,3,24}, Jul^{1,2,3,24}, Aug^{1,2,3} (2020^{1,2}). Collections: BBSL, iNaturalist, INHS, SEMC, TAMU. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Cirsium vulgare*^{3,59}
- **449.** *Megachile* (*Megachile*) *relativa* Cresson, 1878. County records: Chelan³, Clallam¹,2,³, Clark¹,2,³, Jefferson²,³, King²⁴, Mason³, Okanogan¹,2,3,59, Pierce¹,2,3,2⁴, Thurston²⁴, Whitman¹,2,3,2⁴, Yakima¹,2,³. Seasonality: Jun¹,2,3,2⁴, Jul¹,2,3,2⁴, Aug¹,2,3 (2014³). Collections: AMNH, BBSL, INHS, JRYA, SEMC, UCRC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Achillea millefolium*⁵9, *Erigeron speciosus*³,59, *Taraxacum officinale*³,59; BRASSICACEAE: *Smelowskia calycina*⁵9; ONAGRACEAE: *Chamerion angustifolium* ssp. *angustifolium*³,59
- **450.** § *Megachile* (*Megachiloides*) *anograe* Cockerell, 1908. County records: Asotin¹³¹, Benton^{1,2}, Grant^{1,2,4}. Seasonality: May^{1,2,131} (2015^{1,2}). Collections: BBSL, PCYU. [= *Megachile laurita* Mitchell, 1927]. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **451.** *Megachile* (*Megachiloides*) *gravita* Mitchell, 1933. County records: Klickitat^{1,2}, Thurston⁹⁹. Seasonality: Jul^{1,2}, Aug⁹⁹ (2011^{1,2}). Collections: BBSL. [= *Megachile astata* Mitchell, 1933]. **Paratype**. USA, Washington, Thurston County, Olympia; 20 August 1893; T Kincaid. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **452.** §‡ *Megachile* (*Megachiloides*) *legalis* Cresson, 1879. County records: Grant^{131,132}. Seasonality: Jun^{131,132} (1902^{131,132}). Collections: WSUC. [= *Megachile* (*Xeromegachile*) *couleeana* Mitchell, 1938]. **Holotype**. USA, Washington, Grant County, Grand Coulee, Wash Soap Lake; 29 June 1902; WSU No. 425. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **453.** § *Megachile* (*Megachiloides*) *nevadensis* Cresson, **1879**. County records: Benton^{1,2,3}, Yakima¹³¹. Seasonality: Aug^{1,2,3}, Sep^{1,2,3} (1995^{1,2,3}). Collections: BBSL. Conservation status: G3 Vulnerable globally (NatureServe 2024). Floral records: ASTERACEAE: *Senecio*³

- **454.** *Megachile* (*Megachiloides*) *pascoensis* Mitchell, **1934**. County records: Franklin^{1,2,3,99}, **Spokane**^{1,2}, Thurston¹³³, Whitman⁹⁹. Seasonality: May^{1,2,3,99}, Jun¹³³, Jul^{99,133} (2020¹³³). Collections: BBSL, NMNH. **Holotype**. USA, Washington, Franklin County, Pasco; 25 May 1896; USNM No. 39982. **Paratype**. USA, Washington, Whitman County Pullman; July. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ONAGRACEAE: *Clarkia amoena*¹³³; POLEMONIACEAE: *Gilia capitata*¹³³
- **455.** *Megachile* (*Megachiloides*) *subnigra* Cresson, **1879.** County records: Adams^{30,131}, **Benton**^{1,2}, Grant^{1,2,4,131}, Whitman¹³¹, Yakima^{1,2,3,30,92}. Seasonality: May^{1,2,4,131}, Jun¹³¹, Jul^{1,2,3,92} (2015^{1,2}). Collections: BBSL, RSKM, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **456.** \$ Megachile (Megachiloides) umatillensis (Mitchell, 1927). County records: Benton^{1,2,3,6,29,95}, Spokane^{29,95}, Walla Walla^{1,2}. Seasonality: May^{1,2,6}, Jun^{1,2,29,95}, Jul^{1,2,3,29,95}, Aug^{1,2} (2022⁶). Collections: BBSL, WSDA. **Paratype**. USA, Washington Territory, Little Spokane; 26 July 1882; S Henshaw. [= Megachiloides umatillensis Mitchell, 1927]. **Holotype**. USA, Washington Territory, Camp Umatilla; 26 June 1882; MCZ Type No 15714. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **457.** ‡ *Megachile* (*Megachiloides*) *wheeleri* Mitchell, **1927**. County records: Benton⁹⁵, Spokane^{1,2,93,95}, Yakima¹³¹. Seasonality: Jun⁹⁵, Jul^{1,2,131} (1936¹³¹). Collections: MCZ. [= *Megachile spokanensis* Mitchell, 1927]. **Holotype**. USA, Washington Territory, Little Spokane. **Paratype**. USA, Washington Territory, Camp Umatilla; 26 June 1882. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **458.** *Megachile* (*Sayapis*) *fidelis* Cresson, 1878. County records: Benton^{1,2,3}, Chelan^{1,2,3}, Ferry^{1,2,3}, King^{1,2}, Kitsap^{1,2}, Kittitas^{1,2}, Okanogan^{1,2,3,59}, Thurston^{1,2,3}. Seasonality: Jun^{1,2,3}, Aug^{1,2,3}, Sep^{1,2} (2022^{1,2}). Collections: BBSL, iNaturalist, SEMC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: BRASSICACEAE: *Sisymbrium altissimum*^{3,59}
- **459.** *Megachile* (*Sayapis*) *mellitarsis* Cresson, 1878. County records: Grant^{1,2}, Yakima²⁸. Seasonality: May^{1,2}, Jul²⁸ (2007^{1,2}). Collections: PCYU. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **460.** *Megachile* (*Sayapis*) *pugnata* **Say, 1837**. County records: **Chelan**^{1,2,3}, **Ferry**², **King**³, **Kitsap**^{1,2,3}, Okanogan^{1,2,3,59}, San Juan^{3,28}, **Spokane**², **Thurston**², Walla Walla^{1,2,3,71}, Whitman^{2,8}, Yakima²⁸. Seasonality: Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3}, Sep^{1,2,3} (2021^{1,2}). Collections: AMNH, BBSL, BugGuide, iNaturalist, UCRC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Achillea millefolium*³, *Erigeron* speciosus^{3,8}, *Taraxacum officinale*³
- **461.** § *Megachile (Xanthosarus) dentitarsus* Sladen, 1919. County records: San Juan^{1,2,3,124}, Yakima^{1,2,29}. Seasonality: Jul^{1,2,29} (2011^{1,2,124}). Collections: MCZ, PWRC. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **462.** † *Megachile (Xanthosarus) frigida* Smith, **1853**. County records: Grays Harbor^{1,2,3}, King³, Lewis^{2,3}, Okanogan^{1,2,3}, Thurston^{2,3}, Walla Walla^{1,2,3}, Yakima^{1,2,3}.

- Seasonality: Jun^{1,2,3}, Jul^{1,2,3}, Aug³ (2017²). Collections: BBSL, BugGuide, SEMC, UCRC. Conservation status: G5 Secure globally (NatureServe 2024)
- **463.** *Megachile* (*Xanthosarus*) *gemula* Cresson, **1878**. County records: Okanogan^{1,2,3,59}, **San Juan**², Thurston^{3,24,133}. Seasonality: May¹³³, Jun^{1,2,3,24,133}, Jul^{1,2,3,24} (2020¹³³). Collections: BBSL, SEMC, UCRC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASPARAGACEAE: *Triteleia hyacinthina*¹³³; CAMPANULACEAE: *Campanula rotundifolia*^{3,59}; CAPRIFOLIACEAE: *Plectritis congesta*¹³³; FABACEAE: *Lupinus*^{3,59}; HYDROPHYL-LACEAE: *Phacelia leptosepala*^{3,59}; ROSACEAE: *Physocarpus malvaceus*⁸
- **463a.** *Megachile* (*Xanthosarus*) *gemula cressonii* **Dalla Torre, 1896**. County records: Thurston²⁴. Seasonality: Jul²⁴ (1896²⁴)
- **463b.** *Megachile* (*Xanthosarus*) *gemula gemula* Cresson, 1878. County records: Garfield⁴⁶. Seasonality: (1989⁴⁶)
- **464.** *Megachile* (*Xanthosarus*) *melanophaea* Smith, 1853. County records: Chelan³, Clallam^{1,2,3}, Jefferson^{1,2,3}, King^{1,2,3}, Okanogan^{1,2,3,59}, Pierce^{1,2,3,24}, San Juan^{1,2,3,5,24,124,136}, **Skamania**^{1,2,3}, Thurston^{2,24,133}, **Wahkiakum**^{1,2}, **Yakima**^{1,2,3}. Seasonality: May^{1,2,133}, Jun^{1,2,3,5,24,133}, Jul^{1,2,3,5,24,32}, Aug^{1,2,3,24} (2021^{1,2}). Collections: AMNH, BBSL, BugGuide, iNaturalist, JRYA, PWRC, SEMC, UCRC. [= Megachile gemula fulvogemula Mitchell, 1935]. Paratype. USA, Washington, Thurston County, Olympia; 2 June 1894. Conservation status: G5 – Secure globally (NatureServe 2024). Floral records: APOCYNACEAE: Apocynum androsaemifolium¹³³; ASTERACEAE: Eriophyllum lanatum¹³³, Hypochaeris radicata¹³³, Microseris laciniata¹³³; CAMPANULACEAE: Campanula rotundifolia^{3,59,133}; CAPRIFOLIACEAE: Plectritis congesta¹³³; CONVOLVULACEAE: Calystegia soldanella¹³⁶; FABACEAE: Lupinus albicaulis¹³³, L. littoralis¹³⁶, Trifolium repens^{3,59}, Vicia sativa^{5,133}; LAMIACEAE: Micromeria douglasii⁵; ONAGRACEAE: Chamerion angustifolium¹³³; PLANTAGINACEAE: Penstemon washingtonensis⁵⁹; PLUMBAGINACEAE: Armeria maritima¹³³; ROSACEAE: Potentilla gracilis¹³³, Rubus ulmifolius⁵
- **464a.** *Megachile* (*Xanthosarus*) *melanophaea calogaster* Cockerell, **1898**. County records: King²⁴, Thurston²⁴. Seasonality: Jun²⁴ (1895²⁴). Collections: NMNH, WSUC. **Holotype**. USA, Washington, Thurston County, Olympia; 21 June 1895; USNM No. 4268
- **465.** *Megachile* (*Xanthosarus*) *perihirta* Cockerell, **1898**. County records: Benton^{1,2,3}, Chelan^{1,2,3}, Clallam^{1,2,3}, Douglas^{1,2}, Ferry^{1,2,3}, Garfield⁴⁶, Grant^{1,2,3,29}, Island^{1,2}, Jefferson^{1,2,3}, King^{1,2,3,29}, Kitsap^{1,2,3,134}, Kittitas^{1,2,3,29}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, Pierce^{1,2,3}, San Juan^{1,2,3,5,6,29,124,136}, Skamania^{1,2}, Snohomish^{1,2,3}, Spokane^{1,2}, Stevens³, Thurston^{1,2,3,29,133}, Wahkiakum^{1,2}, Walla Walla^{1,2,3,71}, Whatcom^{1,2,3,6}, Whitman^{1,2,3,8,29}, Yakima^{1,2,3}. Seasonality: Jan^{1,2}, May^{1,2}, Jun^{1,2,3,133}, Jul^{1,2,3,5,133}, Aug^{1,2,3,6}, Sep^{1,2,3,29}, Oct^{1,2} (2021^{1,2}). Collections: AMNH, BBSL, BugGuide, FMNH, iNaturalist, INHS, JRYA, PWRC, SEMC, TAMU, UCRC, WSDA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: APOCYNACEAE: *Apocynum androsaemifolium*¹³³; ASTERACEAE: *Achillea*

millefolium⁵⁹, Cirsium arvense^{8,133}, C. vulgare⁸, Crepis capillaris^{133,136}, Erigeron speciosus^{3,59,133}, Gaillardia aristata^{8,133}, Grindelia integrifolia⁵, Helianthus³, Hieracium scouleri¹³³, Hypochaeris radicata¹³³, Leucanthemum vulgare¹³³, Senecio jacobaea¹³³, S. serra⁸, S. triangularis⁵⁹, Solidago⁸, S. canadensis¹³³, S. missouriensis¹³³, Taraxacum officinale⁵⁹, Xanthium⁸; BRASSICACEAE: Cakile maritima¹³⁶; CONVOLVULACEAE: Calystegia soldanella¹³⁶; FABACEAE: Lupinus⁵⁹, L. sericeus³, Vicia villosa⁸; HYPERICACEAE: Hypericum perforatum¹³³; ONAGRACEAE: Chamerion angustifolium¹³³, Clarkia amoena¹³³; ROSACEAE: Rubus ulmifolius⁵

Osmiini

Genus Ashmeadiella Cockerell

- **466.** ‡ *Ashmeadiella (Arogochila) foxiella* Michener, **1939**. County records: Yakima⁴⁴. Seasonality: May⁴⁴ (1903⁴⁴)
- **467.** Ashmeadiella (Arogochila) timberlakei timberlakei Michener, 1936. Comments: Michener (1939) notes an observation of a single specimen from Washington but does not provide a locality within the state.
- **468.** Ashmeadiella (Ashmeadiella) aridula Cockerell, 1910. County records: Spokane^{1,2}, Whitman⁴⁴, Yakima^{2,3}. Seasonality: Jul^{1,2,3,44} (2015^{1,2}). Collections: BBSL, SEMC
- **469.** ‡ Ashmeadiella (Ashmeadiella) bucconis denticulata (Cresson, 1878). County records: Chelan⁴⁴, Yakima⁴⁴. Seasonality: Jul⁴⁴ (1918⁴⁴)
- **470.** *Ashmeadiella* (*Ashmeadiella*) *cactorum* (**Cockerell, 1897**). County records: King⁴⁴, Okanogan^{1,2,3,59}, Thurston⁹⁷. Seasonality: Jul^{44,97}, Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. [= *Ashmeadiella curriei curriei* Titus, 1904]. Floral records: ASTERACEAE: *Taraxacum officinale*^{3,59}; HYDROPHYLLACEAE: *Phacelia leptosepala*^{3,59}
- **471.** ‡ *Ashmeadiella* (*Ashmeadiella*) *californica californica* (**Ashmead**, **1897**). County records: Grant⁴⁴, Whitman^{1,2,3,44}. Seasonality: Jul^{1,2,3,44} (1925^{1,2,3,44}). Collections: SEMC
- **472.** Ashmeadiella (Ashmeadiella) cubiceps (Cresson, 1879). County records: Okanogan^{1,2,3,59}. Seasonality: Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. Floral records: ASTERACEAE: Erigeron speciosus^{3,59}, Hieracium scouleri^{3,59}
- **473.** † *Ashmeadiella* (*Ashmeadiella*) *meliloti* (Cockerell, 1897). County records: Spokane^{1,2}. Seasonality: Jul^{1,2} (2015^{1,2}). Collections: BBSL

Genus Atoposmia Cockerell

- **474.** *Atoposmia* (*Atoposmia*) *elongata* (Michener, 1936). County records: Okanogan^{1,2,3,4,59}, Pierce⁹⁶. Seasonality: Jul^{1,2,3,4} (2004^{1,2,3,4,59}). Collections: BBSL
- **475.** *Atoposmia* (*Hexosmia*) *copelandica* (Cockerell, 1908). County records: Okanogan^{1,2,3,59}, **Stevens**^{1,2}. Seasonality: Jul^{1,2}, Aug^{1,2,3} (2014^{1,2}). Collections: BBSL. Floral records: HYDROPHYLLACEAE: *Phacelia leptosepala*^{3,59}

Genus Chelostoma Latreille

- **476.** *Chelostoma* (*Neochelostoma*) *minutum* Crawford, **1916**. County records: Okanogan^{1,2,3,59}, Spokane^{43,96}. Seasonality: Jun^{1,2,3}, Jul⁴³, Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. Floral records: CRASSULACEAE: *Sedum lanceolatum*^{3,59}
- **477.** *Chelostoma* (*Neochelostoma*) *phaceliae* Michener, **1938**. County records: Asotin⁹⁶, **Benton**^{1,2,3}, Walla Walla^{43,96}. Seasonality: May⁴³, Jun^{1,2,3} (1994^{1,2,3}). Collections: BBSL

Genus Heriades Spinola

- **478.** † *Heriades (Neotrypetes) carinata Cresson*, **1864**. County records: **Cowlitz**^{1,2}, **King**^{1,2,3}, **Thurston**³, **Yakima**^{1,2}. Seasonality: Jul^{1,2}, Aug^{1,2,3} (1983^{1,2,3}). Collections: BBSL, SEMC, UCRC
- **479.** *Heriades* (*Neotrypetes*) *cressoni* Michener, **1938**. County records: Chelan^{1,2,3}, Okanogan^{1,2,3,59}. Seasonality: Jul^{1,2,3}, Aug^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL. Floral records: ASTERACEAE: *Erigeron speciosus*^{3,59}; MALVACEAE: *Iliamna longisepala*³
- **480.** †‡ *Heriades (Neotrypetes) occidentalis* Michener, **1938**. County records: Yakima³. Seasonality: Jul³ (1920³). Collections: UCRC
- **481.** *Heriades (Neotrypetes) variolosa* (Cresson, 1872). County records: Stevens^{1,2}, Yakima^{1,2,3,42}. Seasonality: Jul^{1,2,3}, Aug^{1,2,3} (2011^{1,2}). Collections: BBSL, SEMC

Genus Hoplitis Klug

- 482. Hoplitis (Alcidamea) albifrons (Kirby, 1837). County records: Chelan³, Clallam¹,2,³, Columbia¹,2,³, Kittitas¹,², Klickitat¹,2,³, Okanogan¹,2,3,4,5,9, Pierce¹,2,3, San Juan³, Spokane¹,², Stevens¹,², Thurston²,13, Yakima¹,2,3,9,6. Seasonality: Apr², Jun¹,2,3,4,13,3, Jul¹,2,3,4, Aug¹,2,4 (2018²,13). Collections: AMNH, BBSL, BugGuide, SEMC, UCRC, WSUC. Floral records: ASTERACEAE: Arnica sororia⁵, Erigeron speciosus⁵, Senecio triangularis⁵, Taraxacum officinale³,5,5; FABACEAE: Lupinus³,5, L. polyphyllus³, Trifolium pratense⁵, T. repens³,5,5; HYDROPHYL-LACEAE: Phacelia leptosepala³,5,5,4,13,5,6,13,7,6,13,7,7,13,7,13
- 483. Hoplitis (Alcidamea) fulgida (Cresson, 1864). County records: Clallam³, Columbia¹³⁵, Ferry², Grant¹⁰⁴, Kittitas¹²³, Okanogan¹²²³⁵, Pierce³, Spokane¹²³, Stevens¹², Yakima¹²³. Seasonality: May¹²²¹⁰⁴, Jun¹²²³, Jul¹²³, Aug¹²³ (2021¹³⁵). Collections: BBSL, BugGuide, NMDG, INHS, JRYA, SEMC, UCRC, WSUC. Floral records: ASTERACEAE: Achillea millefolium³,⁵°, Crepis atrabarba⁵°, Taraxacum officinale³,⁵°; BORANGINACEAE: Myosotis laxa³,⁵°; HYDROPHYL-LACEAE: Phacelia leptsepala³,⁵°, P. heterophylla³; POLEMONIACEAE: Polemonium pulcherrimum⁵°; RANUNCULACEAE: Delphinium nuttallianum³, Ranunculus³; ROSACEAE: Physocarpus malvaceus³, Potentilla gracilis³,⁵°

- **484.** *Hoplitis* (*Alcidamea*) *grinnelli* (Cockerell, 1910). County records: Benton^{1,2,3}, Garfield^{1,2,3,46,104}, Grant^{1,2,4}, Klickitat^{1,2}, Lewis^{1,2,4,104}, Okanogan^{1,2,3,59}, Spokane^{1,2}, Thurston¹³³, Whitman^{1,2,3,103}. Seasonality: Apr^{1,2}, May^{1,2,3,4,104}, Jun^{1,2,103,133}, Jul¹⁰³, Aug^{1,2,3} (2018¹³³). Collections: BBSL, PCYU, SEMC. Floral records: FABACE-AE: *Astragalus*³, *Lupinus lepidus*¹³³; ROSACEAE: *Potentilla gracilis*¹³³
- **485.** *Hoplitis* (*Alcidamea*) *hypocrita* (Cockerell, 1906). County records: Benton^{1,2,3}, Garfield^{1,2,3,46}, **Spokane**^{1,2,3}, Whitman^{1,2,3,8}, **Yakima**^{1,2,4}. Seasonality: May^{1,2,3,4}, Jun^{1,2,3,46}, Jul^{1,2,3} (2012^{1,2}). Collections: BBSL, WSUC. Floral records: APIACE-AE: *Lomatium*⁸; ASTERACEAE: *Balsamorhiza sagitta*⁸; FABACEAE: *Astragalus*³, *A. bungeanus*³, *A. falcatus*³; PLANTAGINACEAE: *Penstemon attenuatus*⁸
- **486.** *Hoplitis* (*Alcidamea*) *louisae* (Cockerell, 1934). County records: Benton^{1,2,3}, Kittitas^{1,2,3}, Thurston¹⁰³, Yakima¹⁰³. Seasonality: Jun^{1,2,3}, Jul^{1,2,3} (1994^{1,2,3}). Collections: BBSL, SEMC
- **487.** *Hoplitis* (*Alcidamea*) *producta* (Cresson, 1864). County records: Benton^{1,2}, Klickitat^{1,2,104}, Okanogan⁵⁹, Skamania^{1,2}, Spokane^{1,2}, Thurston¹³³, Wahkia-kum^{1,2}, Whitman^{6,104}. Seasonality: Apr^{1,2}, May¹⁰⁴, Jun^{1,2,133}, Jul^{1,2,6,104}, Aug^{1,2} (2019¹³³). Collections: BBSL. Floral records: ASTERACEAE: *Achillea millefolium*⁵⁹; FABACEAE: *Lupinus lepidus*¹³³; ROSACEAE: *Potentilla gracilis*¹³³
- **487a.** § *Hoplitis* (*Alcidamea*) *producta subgracilis* Michener, **1947**. County records: **Okanogan**^{1,2,3}, Pierce¹⁰³, **Skagit**^{1,2,3}, Whitman¹⁰³. Seasonality: Jun^{1,2,3}, Jul^{1,2,3} (2004^{1,2,3}). Collections: BBSL. Conservation status: Vulnerable (National Research Council 2005, Shepherd 2005d). Floral records: ASTERACEAE: *Achillea millefolium*³
- **488.** *Hoplitis* (*Alcidamea*) *sambuci* **Titus, 1904.** County records: Garfield^{1,2,3,46}, **Klickitat**^{1,2}, **Spokane**^{1,2}, **Walla Walla**^{1,2,3}, Whitman^{1,2,3,96,103}. Seasonality: May^{1,2,3}, Jun^{1,2,3,46}, Jul^{1,2}, Aug^{1,2} (2015^{1,2}). Collections: BBSL, NMNH. **Holotype**. USA, Washington, Whitman County, Pullman; CV Piper; Type No. 66860, USNM ENT 00536520. Floral records: *Sambucus glacua*⁹⁶
- **489.** †‡ *Hoplitis* (*Alcidamea*) *spoliata* (**Provancher, 1888**). County records: Whitman^{1,3}. Seasonality: Jul^{1,3} (1908^{1,3}). Collections: INHS
- **490.** † *Hoplitis* (*Alcidamea*) *uvulalis* (Cockerell, 1902). County records: Okanogan^{1,2}. Seasonality: Aug^{1,2} (2012^{1,2}). Collections: BBSL
- **491.** *Hoplitis* (*Alcidamea*) *viridimicans* (Cockerell, 1897). County records: Thurston on ton of the control of the contro
- **492.** *Hoplitis* (*Formicapis*) *robusta* (Nylander, 1848). County records: Chelan^{1,2,3}, Garfield^{1,2,3}, Okanogan^{1,2,3,59}. Seasonality: Jul^{1,2,3}, Aug^{1,2,3} (2010^{1,2,3}). Collections: BBSL
- **493.** *§ Hoplitis (Proteriades) orthognatha* (Griswold, 1983). County records: Asotin^{102,112}. Seasonality: Jun¹⁰² (1973¹⁰²). Collections: WSUC. [= *Proteriades orthognathus* Griswold, 1983]. **Holotype**. USA, Washington, Asotin County, Fields Spring, 6.4 km S Anatone; 7 June 1973; M Jackson; WSUC No. 370. Conservation status: Vulnerable (Shepherd 2005e; National Research Council 2007)

Genus Osmia Panzer

- **494.** *Osmia* (*Cephalosmia*) *californica* Cresson, **1864**. County records: Benton^{1,2,3}, Chelan¹³⁶, Franklin^{121,129}, **Grant**^{1,2,3}, **Kittitas**^{1,2,3}, **Klickitat**^{1,2}, **Lincoln**^{1,2,3}, Okanogan^{1,2,3,59}, **Spokane**^{1,2}, **Stevens**^{1,2}, **Walla Walla**^{1,2,3}, Whitman^{1,2,3,8}, **Yakima**^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3,129}, Jun^{1,2,3}, Jul^{1,2,3} (2015^{1,2}). Collections: AMNH, BBSL, INHS, SEMC, WSUC. [= *Osmia pascoensis* Cockerell, 1897]. **Paratype**. USA, Washington, Franklin County, Pasco; May; Kincaid; Type No. 6868. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: APIACEAE: *Lomatium*⁸; ASTERACEAE: *Arnica sororia*^{3,59}, *Balsamorhiza sagittata*⁸, *Gaillardia aristata*⁸, *Senecio hydrophiloides*^{3,59}; FABACEAE: *Lupinus sericeus*⁵⁹; GROSSULARIACEAE: *Ribes aureum*⁸
- **495.** † *Osmia* (*Cephalosmia*) *grinnelli* Cockerell, **1910**. County records: Yakima⁷. Seasonality: May⁷, Aug⁷ (2012⁷). Collections: WSUC
- **496.** *Osmia* (*Cephalosmia*) *marginipennis* Cresson, 1878. County records: Chelan³, Okanogan^{1,2,3,59}, Stevens^{1,2}, Whitman⁹⁷, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jul^{1,2,3} (2012^{1,2}). Collections: BBSL, UCRC. Floral records: ROSACEAE: *Potentilla gracilis*^{3,59}
- **497.** *Osmia* (*Cephalosmia*) *montana* Cresson, 1864. County records: Douglas⁷, Kittitas^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2,3,4,59}, Spokane^{1,2}, Stevens^{1,2}, Whitman⁸, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3,7}, Aug^{1,2} (2016^{1,2}). Collections: BBSL, BugGuide, EMEC, SEMC, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Arnica sororia*⁵⁹, *Crepis atrabarba*⁵⁹, *Erigeron speciosus*^{3,59}, *Gaillardia aristata*⁸, *Senecio hydrophiloides*⁵⁹, *S. triangularis*⁵⁹, *Taraxacum officinale*^{3,59}; POLEMONIACEAE: *Polemonium pulcherrimum*^{3,59}; ROSACEAE: *Potentilla gracilis*^{3,59}, *Rosa*⁸
- **498.** *Osmia* (*Cephalosmia*) *subaustralis* Cockerell, 1900. County records: Clallam³, Okanogan¹,2,3,4,59, **Spokane¹**,², **Stevens¹**,², **Walla Walla¹**,2,³, Whitman³. Seasonality: Apr¹,², Jun¹,2,³, Jul¹,2,3,4, Aug¹,2,3,4 (2014¹,2,³). Collections: BBSL, JRYA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Arnica cordifolia*⁵⁹, *Erigeron speciosus*³,59, *Gaillardia aristata*³, *Packera cana*³, *Senecio*59, *S. triangularis*59, *Taraxacum officinale*59; ROSACEAE: *Fragaria virginiana* ssp. *platypetala*59
- **499.** †\$ *Osmia* (*Hapsidosmia*) *iridis* Cockerell and Titus, 1902. County records: Garfield⁷, Spokane^{1,2}. Seasonality: May^{1,2}, Jul⁷ (2014^{1,2}). Collections: BBSL, WSUC. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **500.** †* *Osmia* (*Helicosmia*) *caerulescens* (Linnaeus, 1758). County records: Clallam², King¹,²,³, Skamania¹,², Spokane², Thurston¹,²,³, Wahkiakum¹,², Yakima². Seasonality: May¹,²,³, Jun¹,², Jul¹,² (2019¹,²). Collections: BBSL, BugGuide, iNaturalist. [= *Osmia coerulescens* (Linnaeus, 1758)]. Conservation status: G5 Secure globally (NatureServe 2024)
- 501. Osmia (Helicosmia) coloradensis Cresson, 1878. County records: Chelan^{1,2,3}, Clallam³, Island^{1,2,3}, King^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Lewis^{1,2,4},

- Okanogan^{1,2,3,4,59}, **Pierce**^{1,2,3}, **Spokane**^{1,2,3}, **Stevens**^{1,2}, **Thurston**^{1,2,3}, **Walla Walla**^{1,2,3}, **Whatcom**^{1,2,3}, Whitman^{1,2,3}, **Yakima**^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3,4}, Jun^{1,2,3}, Jul^{1,2,3,4}, Aug^{1,2,3,4} (2016^{1,2}). Collections: BBSL, JRYA, PCYU, SEMC, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: Achillea millefolium^{3,59}, Agoseris glauca var. dasycephala⁵⁹, Arnica cordifolia⁸, A. sororia⁵⁹, Cirsium vulgare⁵⁹, Erigeron speciosus^{3,59}, Senecio³, S. hydrophiloides⁵⁹, S. triangularis⁵⁹, Taraxacum officinale^{3,59}; FA-BACEAE: Trifolium repens⁸; POLEMONIACEAE: Polemonium pulcherrimum⁵⁹
- **502.** † *Osmia* (*Helicosmia*) *texana* Cresson, 1872. County records: Asotin^{2,3}, Clark^{1,2}, Klickitat^{1,2}, Pierce^{1,2,3,4}, Wahkiakum^{1,2}, Whitman^{1,4}, Yakima⁷. Seasonality: May^{1,4}, Jun^{1,3,4}, Jul¹, Aug⁷ (2016¹). Collections: BBSL, PCYU, WSUC. Conservation status: G5 Secure globally (NatureServe 2024)
- **503.** *Osmia* (*Melanosmia*) *aglaia* Sandhouse, 1939. County records: Whitman³². Seasonality: May³² (2012³²). Conservation status: G5 Secure globally (Nature-Serve 2024)
- **504.** *Osmia* (*Melanosmia*) *albolateralis* Cockerell, 1906. County records: Benton^{1,2,3}, Chelan¹³⁶, Garfield^{1,2,3,46}, Kittitas^{2,3}, Klickitat^{1,2}, Lincoln^{2,3}, Okanogan^{1,2,3,4,59}, Skagit⁷, Skamania^{1,2}, Spokane^{1,2}, Stevens^{1,2}, Wahkiakum^{1,2}, Whitman^{1,2,3,6}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3,6,7}, Jul^{1,2,3,7}, Aug^{1,2,3,4} (2016^{1,2}). Collections: BBSL, SEMC, WSDA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Taraxacum officinale*^{3,59}; BORAGINACEAE: *Myosotis laxa*⁵⁹; FABACEAE: *Astragalus miser* var. *miser*^{3,59}; LAMIACEAE: *Salvia dorrii*³, PLANTAGINACEAE: *Penstemon confertus*^{3,59}; POLEMONIACEAE: *Polemonium pulcherrimum*⁵⁹
- **505.** † *Osmia* (*Melanosmia*) *atriventris* Cresson, 1864. County records: Whitman^{2,3}. Seasonality: (2003^{2,3}). Collections: BBSL. Conservation status: G5 Secure globally (NatureServe 2024)
- **506.** *Osmia* (*Melanosmia*) *atrocyanea* Cockerell, **1897**. County records: Chelan^{1,2,3}, Clark^{1,2}, Garfield^{1,2,3,46}, Klickitat^{1,2,3}, Lincoln^{2,3}, Okanogan^{1,2,3,59}, Spokane^{1,2,3}, Stevens^{1,2}, Thurston^{1,2,129}, Walla Walla^{1,2,3}, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3,129} (2015^{1,2}). Collections: BBSL, NMNH, SEMC, WSUC. Holotype. USA, Washington, Thurston County, Olympia; 4 July 1896; Type No. 28209, USNM ENT 00536700. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Balsamorhiza sagittata*⁸; FABACEAE: *Astragalus bungeanus*³, *Lupinus polyphyllus*⁸, *Trifolium repens*^{3,59}, *Vicia villosa*⁸; PLANTAGINACEAE: *Penstemon confertus*^{3,59}; ROSACEAE: *Malus domestica*⁸
- **507.** †\$ *Osmia* (*Melanosmia*) *austromaritima* Michener, 1936. County records: Benton^{1,2}, Spokane^{1,2}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2} (2014^{1,2}). Collections: BBSL. [= *Osmia hurdi* White, 1952]. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **508.** † *Osmia (Melanosmia) bella* Cresson, 1878. County records: Grant^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2,3}, Okanogan^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3}. Seasonality: Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2004^{1,2,3}). Collections: BBSL

- **509.** Osmia (Melanosmia) brevis Cresson, 1864. County records: Kittitas^{2,3}, Klickitat^{1,2,3}, Okanogan^{1,2,3,4,59}, Spokane^{1,2,3}, Stevens^{1,2}, Whitman^{1,2,3,4,8}, Yakima^{1,2,3}. Seasonality: May^{1,2,3,4}, Jun^{1,2,3}, Jul^{1,2,3,4}, Aug^{1,2,3,4} (2015^{1,2}). Collections: BBSL, INHS, PCYU WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: Agoseris glauca var. dasycephala^{3,59}, Erigeron speciosus⁵⁹; FABACEAE: Trifolium repens⁸, Vicia villosa⁸; HYDROPHYL-LACEAE: Phacelia heterophylla⁸; PLANTAGINACEAE: Penstemon confertus^{3,59}, P. serrulatus³, P. washingtonensis⁵⁹
- **510.** *Osmia* (*Melanosmia*) *bruneri* Cockerell, 1897. County records: Benton^{1,2,3}, Chelan¹³⁶, Columbia^{1,2,3}, Garfield^{1,2,3,46}, Grant^{1,2,3}, Kittitas^{1,2,3}, Spokane^{1,2}, Stevens^{1,2}, Walla Walla³, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3} (2015^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral record: FABACEAE: *Astragalus*³, *Trifolium*³; LAMIACEAE: *Salvia dorrii*³
- 511. Osmia (Melanosmia) bucephala Cresson, 1864. County records: Clark^{1,2}, Gar-field^{1,2,3,46}, Jefferson^{1,2}, King^{1,2,3}, Kitsap^{1,2,3}, Okanogan^{1,2,3,59}, San Juan^{1,2,3,136}, Skamania^{1,2}, Stevens^{1,2}, Thurston^{40,129}, Wahkiakum^{1,2}, Whatcom⁷, Whitman^{1,2,3,40}. Seasonality: Apr^{1,2}, May^{1,2,3,40}, Jun^{1,2,3,7,40,129}, Jul^{1,2,3} (2017¹³⁶). Collections: BBSL, CUIC, NMNH, SEMC, UCRC, WSUC. [= Osmia subornata Cockerell, 1897]. Paratype. USA, Washington, Thurston County, Olympia; 1 June 1894; Type No. 6879, USNM ENT 00536996. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: Astragalus miser var. serotinus³, Lathyrus japonicus^{7,136}; OLEACEAE: Syringa³
- **512.** †‡ *Osmia* (*Melanosmia*) *cahuilla* Cooper, **1993**. County records: **Pierce**^{1,2,3}. Seasonality: Jul^{1,2,3} (1920^{1,2,3}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **513.** *Osmia* (*Melanosmia*) *calla* Cockerell, **1897**. County records: **Benton**^{1,2,3}, **Klickitat**^{1,2}, **Spokane**^{1,2}, Thurston¹²⁹, Whitman^{1,2,3,6,8}. Seasonality: May^{1,2}, Jun^{1,2,6}, Jul^{1,2,3}, Aug^{1,2} (2015^{1,2}). Collections: BBSL, NMNH, WSDA, WSUC. **Paratype**. USA, Washington, Thurston County, Olympia; Kincaid; Type No. 6866. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: *Astragalus*³, *Vicia villosa*⁸; HYDROPHYLLACEAE: *Phacelia hastata*³
- **514.** †‡ *Osmia (Melanosmia) cara* Cockerell, **1910**. County records: **Kittitas**^{1,2,3}. Seasonality: Jul^{1,2,3} (1935^{1,2,3}). Collections: BBSL
- **515.** † *Osmia (Melanosmia) cobaltina* Cresson, **1878**. County records: Chelan^{1,2,3}, Franklin^{1,2,3}, Grant^{1,2,3}, Whitman^{2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3} (1977^{1,2,3}). Collections: BBSL, INHS
- **516.** *Osmia* (*Melanosmia*) *cyanella* Cockerell, **1897**. County records: **Asotin**³, **Chelan**^{1,2,3}, **King**^{1,2,3}, **Klickitat**^{1,2}, Thurston^{1,2,3,129}, **Yakima**^{1,2,4}. Seasonality: May^{1,2,3,4}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2} (2012^{1,2}). Collections: BBSL, EMEC, NMNH, UCRC. **Type**. USA, Washington, Thurston County, Olympia; May; Kincaid; Type No. 6364

- **517.** *Osmia* (*Melanosmia*) *cyanopoda* Cockerell, **1916**. County records: **Benton**^{1,2,3}, Garfield^{1,2,3,46}, **Walla Walla**^{1,2}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3} (2012^{1,2}). Collections: BBSL. Floral records: FABACEAE: *Astragalus*³
- **518.** *Osmia* (*Melanosmia*) *dakotensis* Michener, **1937**. County records: Benton^{1,2}, Garfield^{1,2,46}. Seasonality: May^{1,2} (1998^{1,2}). Collections: BBSL. [= *Osmia* (*Melanosmia*) *cockerelli* Sandhouse, 1939]. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **519.** † *Osmia* (*Melanosmia*) *densa* Cresson, **1864**. County records: Chelan^{1,2,3}, Clallam³, Garfield^{1,2,3}, Island^{1,2,3}, King^{1,2,3}, Kittitas^{1,2,3}, Klickitat^{1,2}, San Juan^{1,2,3}, Spokane^{1,2}, Stevens^{1,2}, Whatcom³, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2,3} (2016^{1,2}). Collections: BBSL, JRYA, OSUC, UCRC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: FABACEAE: *Onobrychis*³, *Trifolium repens*³; MALVACEAE: *Sidalcea oregana*³
- **520.** *Osmia* (*Melanosmia*) *dolerosa* Sandhouse, **1939**. County records: Chelan³, Clallam³, King¹,2,3,100</sup>, **Kitsap¹,2,3**, **Klickitat¹,2**, **Okanogan¹,2,3**, **Pacific¹,2,3**, **Pierce¹,2,3**, San Juan²,3,100,136, Thurston¹00, **Whitman**³. Seasonality: Apr¹,2,3, May¹,2,3,100, Jun¹,2,3,100, Jul¹,2,3,100, Aug³ (2017¹36). Collections: BBSL, JRYA, SEMC, UCRC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: *Trifolium hybridum*³; ROSACEAE: *Rubus bifrons*¹36, *R. ursinus*³
- **521.** † *Osmia (Melanosmia) ednae* Cockerell, 1907. County records: Spokane^{1,2}, Whitman^{1,2,4}. Seasonality: May^{1,2,4} (2014^{1,2}). Collections: BBSL, PCYU. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **522.** *Osmia* (*Melanosmia*) *exigua* Cresson, 1878. County records: Klickitat^{1,2}, Okanogan^{1,2,3,59}, Spokane^{1,2}, Stevens^{1,2}, Thurston¹³³, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,133}, Jun^{1,2,3,133}, Jul^{1,2,3}, Aug^{1,2} (2019¹³³). Collections: BBSL. Floral records: ASTERACEAE: *Hypochaeris radicata*¹³³; CAPRIFOLIACEAE: *Plectritis congesta*¹³³; FABACEAE: *Lupinus albicaulis*¹³³, *L. lepidus*¹³³, *Trifolium repens*^{3,59}
- **523.** *Osmia* (*Melanosmia*) *giliarum* Cockerell, **1906**. County records: Adams^{2,101}, King¹⁰¹, **Kittitas**^{1,2}, **Klickitat**^{1,2}, Thurston¹⁰¹, Walla Walla^{1,2,101}, Whitman^{1,2,101}, Yakima^{1,2,101}. Seasonality: May^{1,2,101}, Jun^{1,2,101}, Jul^{1,2,101} (2012^{1,2}). Collections: BBSL, SEMC. [= *Osmia physariae* Cockerell, 1907]. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **524.** †‡ *Osmia* (*Melanosmia*) *grindeliae* Cockerell, 1910. County records: Chelan^{1,2,3}. Seasonality: Jul^{1,2,3} (1930^{1,2,3}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **525.** *Osmia* (*Melanosmia*) *inermis* (**Zetterstedt, 1838**). County records: King^{1,2,3,31}. Collections: BBSL. Conservation status: G5 Secure globally (NatureServe 2024)
- **526.** *Osmia* (*Melanosmia*) *integra* Cresson, 1878. County records: Adams⁷, Benton^{1,2,3}, Chelan^{1,2,3}, Garfield^{1,2,3,46}, Grant^{1,2,3,4}, Kittitas^{1,2,3}, Walla Walla^{1,2,3,101}, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3,7,101}, May^{1,2,3,4,101} (2014^{1,2}). Collections: BBSL, LACM, PCYU, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: FABACEAE: *Astragalus bungeanus*³; LAMIACEAE: *Salvia dorrii*³

- **527.** † *Osmia* (*Melanosmia*) *inurbana* Cresson, 1878. County records: Garfield^{1,2,3}, Thurston¹³³, Walla Walla^{1,2,3}, Whitman^{1,2,3}. Seasonality: May^{1,2,3,133}, Jun^{1,2,3,133}, Jul¹³³ (2020¹³³). Collections: BBSL, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASPARAGACEAE: *Camassia quamash*¹³³; ASTERACEAE: *Crepis capillaris*¹³³, *Hypochaeris radicata*¹³³; CAPRIFOLIACEAE: *Plectritis congesta*¹³³; FABACEAE: *Lupinus bicolor*¹³³, *L. lepidus*¹³³; HYPERICACEAE: *Hypericum perforatum*¹³³; ROSACEAE: *Potentilla gracilis*¹³³
- **528.** *Osmia* (*Melanosmia*) *juxta* Cresson, 1864. County records: Asotin⁷, Chelan^{1,2,3}, Ferry³, King^{1,2,3}, Kittitas³, Klickitat^{1,2}, Lewis^{1,2,4}, Okanogan^{1,2,3,4,59}, San Juan^{1,2,3}, Spokane^{1,2}, Stevens^{1,2,3}, Thurston^{1,2,3}, Whitman⁶. Seasonality: Apr^{1,2}, May^{1,2,3,4}, Jun^{1,2,3,4,6,7}, Jul^{1,2,3}, Aug^{1,2,3,4} (2015^{1,2}). Collections: BBSL, EMEC, LACM, OSUC, PCYU, UCRC, WSDA, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Arnica cordifolia*⁵⁹, *Erigeron speciosus*^{3,59}, *Microseris nutans*⁵⁹, *Taraxacum officinale*⁵⁹; FABACEAE: *Trifolium repens*^{3,59}; HYDROPHYLLACEAE: *Phacelia leptosepala*⁵⁹; ONAGRACEAE: *Chamerion angustifolium* ssp. *angustifolium*⁸; PLANTAGINACEAE: *Penstemon confertus*^{3,59}
- **529.** *Osmia* (*Melanosmia*) *kincaidii* Cockerell, **1897**. County records: Benton^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2}, Pierce^{1,2,3}, Skagit^{1,2,3}, Spokane^{1,2}, Stevens^{1,2}, Thurston^{1,2,3,129}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2,3}, Jul^{1,2,3}, Aug^{1,2} (2016^{1,2}). Collections: BBSL, NMNH, WSUC. **Lectotype**. USA, Washington, Thurston County, Olympia; 2 June 1894; Type No. 3710, USNM ENT 00536951. **Paratype**. USA, Washington, Thurston County, Olympia; Kincaid; Type No. 6867. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: HYDROPHYLLACEAE: *Phacelia heterophylla*⁸; PLANTAGINACEAE: *Collinsia parviflora*⁸
- **530.** † *Osmia* (*Melanosmia*) *laeta* Sandhouse, 1924. County records: Klickitat^{1,2}, Okanogan^{2,4}. Seasonality: Jun^{1,2}, Jul^{2,4}, Aug^{2,4} (2012^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- 531. †\$‡ Osmia (Melanosmia) lanei Sandhouse, 1939. County records: Yakima^{1,2,3}. Seasonality: Jun^{1,2,3} (1927^{1,2,3}). Collections: NMNH. Holotype. USA, Washington, Yakima County, Naches River; 8 June 1927; MC Lane; Type No 52872, USNM ENT 00536953. Conservation status: G3 Vulnerable globally, possibly extirpated in Washington (NatureServe 2024)
- 532. Osmia (Melanosmia) longula Cresson, 1864. County records: Benton^{1,2,3}, Chelan¹³⁶, Kittitas^{1,2,3}, Okanogan^{1,2,3,4,59}, Spokane^{1,2}, Thurston¹²⁹, Whitman^{1,2,6}, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3}, May¹²⁹, Jun^{1,2,3,6}, Jul^{1,2,3}, Aug^{1,2,3,4} (2018^{1,2,3}). Collections: BBSL, iNaturalist, WSDA. [= Osmia grandior Cockerell, 1897]. Paratype. USA, Washington, Thurston County, Olympia; 10 May 1894; Kincaid; Type No. 6869, USNM ENT 00536934. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: Astragalus columbianus³, A. miser var. miser⁵⁹; PLANTAGINACEAE: Penstemon washingtonensis^{3,59}

- **533.** † *Osmia* (*Melanosmia*) *malina* Cockerell, 1909. County records: Chelan^{1,2,3}, Clallam^{1,2,3}, King^{1,2,3}, Klickitat^{1,2}, Wahkiakum^{1,2}. Seasonality: May^{1,2,3}, Jun^{1,2}, Jul^{1,2,3}, Aug^{1,2} (2011^{1,2}). Collections: BBSL, OSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: MALVACEAE: *Sidalcea oregana*³
- **534.** *Osmia* (*Melanosmia*) *melanopleura* Cockerell, **1916**. County records: Klickitat^{1,2}, Spokane^{1,2}, Stevens^{1,2}, Whitman^{1,2,3,40}. Seasonality: Apr^{1,2}, May^{1,2,3,40}, Jun^{1,2} (2016^{1,2}). Collections: BBSL, INHS, SEMC. [= *Osmia bakeri* Sandhouse, 1924]
- **535.** *Osmia* (*Melanosmia*) *nanula* Cockerell, **1897**. County records: King^{1,2,3,100,129}, Okanogan^{1,2}, Skamania^{1,2}, Spokane^{1,2}, Walla Walla^{1,2,3}, Whitman^{1,2,3,8}. Seasonality: May^{1,2,3,129}, Jun^{1,2,3}, Jul^{1,2}, Aug^{1,2} (2016^{1,2}). Collections: BBSL, INHS, NMNH, SEMC, WSUC. **Type**. USA, Washington, King County, Seattle; 19 May 1896; Type No. 6865, USNM ENT 00536968. [= *Osmia phaceliae* Cockerell, 1907]. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: GERANIACEAE: *Geranium viscosissimum*⁸; RANUNCU-LACEAE: *Ranunculus*⁸
- **536.** *Osmia* (*Melanosmia*) *nemoris* Sandhouse, **1924**. County records: Benton^{1,2}, Klickitat^{1,2}, Spokane^{1,2}, Thurston^{1,2}, Walla Walla^{1,2,3}, Whitman^{1,2,3,8}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2}, Aug^{1,2} (2014^{1,2}). Collections: BBSL, MCZ, SEMC, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Arnica cordifolia*⁸, *Balsamorhiza sagittata*⁸
- **537.** ‡ *Osmia* (*Melanosmia*) *nifoata* Cockerell, 1909. County records: Whitman^{1,2,3,101}, Yakima^{1,2,3,101}. Seasonality: Jun¹⁰¹, Jul^{1,2,3,101} (1904¹⁰¹). Collections: BBSL, SEMC, WSUC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Senecio*³
- **538.** *Osmia* (*Melanosmia*) *nigrifrons* Cresson, **1878**. County records: Adams⁷, Benton^{1,2,3}, Garfield^{1,2,3,46}, King^{1,2,3}, Klickitat^{1,2}, Stevens^{1,2}, Whitman^{1,2,3,8,101}. Seasonality: Apr^{1,2,3}, May^{1,2,3,7,101}, Jun^{1,2,3,101} (2012^{1,2}). Collections: AMNH, BBSL, EMEC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Balsamorhiza sagittata*⁸; FABACEAE: *Astragalus*³, *Trifolium*³, *Vicia villosa*⁸
- **539.** *Osmia* (*Melanosmia*) *nigriventris* (**Zetterstedt, 1838**). County records: Okanogan^{1,2,3,31,59}, **Pierce**^{1,2,3}, **Stevens**^{1,2}, **Whatcom**^{1,2,3}. Seasonality: Jun^{1,2}, Jul^{1,2,3,31} (2014^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **540.** §‡ *Osmia* (*Melanosmia*) *nigrobarbata* Cockerell, **1916**. County records: Walla Walla^{1,2,3,101}. Seasonality: May^{1,2,3,101} (1937^{1,2,3,101}). Collections: SEMC. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **541.** †\$ *Osmia* (*Melanosmia*) *obliqua* White, **1952**. County records: Klickitat^{1,2}, Spokane^{1,2}. Seasonality: May^{1,2}, Jun^{1,2} (2014^{1,2}). Collections: BBSL. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **542.** § *Osmia* (*Melanosmia*) *odontogaster* Cockerell, 1897. County records: King^{1,2,3}, Okanogan^{1,2,3,59}, Thurston^{1,2,3,101,129}, Whitman^{1,2,3,101}. Seasonality: Apr^{1,2},

- May^{1,2,3,101}, Jun^{1,2,3,101}, Jul^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL, NMNH, SEMC. **Paratype**. USA, Washington, Thurston County, Olympia; Kincaid; Type No. 3709. Conservation status: G2 Imperiled globally (NatureServe 2024). Floral records: ASTERACEAE: *Erigeron nivalis*⁵⁹, *Senecio hydrophiloides*^{3,59}; FABACEAE: *Trifolium pratense*⁵⁹, *T. repens*^{3,59}; ROSACEAE: *Potentilla gracilis*^{3,59}, *Rubus ursinus*³
- **543.** *Osmia* (*Melanosmia*) *paradisica* Sandhouse, 1924. County records: Chelan³, Okanogan¹,2,3,4,59, Pierce¹,2,3, Skagit³, Stevens¹,2, Whatcom³. Seasonality: Jun¹,2, Jul¹,2,3,4, Aug¹,2,3,4 (2016¹,2). Collections: BBSL, JRYA. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Anaphalis margaritacea*³,59, *Erigeron speciosus*³,59, *Senecio integerrimus*59; CRASSULACEAE: *Sedum lanceolatum*59; FABACEAE: *Lupinus*³,59; PLANTAGINACEAE: *Penstemon washingtonensis*59; POLEMONIACEAE: *Polemonium pulcherrimum*59; ROSACEAE: *Potentilla gracilis*³,59
- **544.** *Osmia* (*Melanosmia*) *pentstemonis* Cockerell, 1906. County records: Clallam³, Kittitas²,³, Klickitat¹,², Okanogan¹,²,³,4,59, Pierce¹,²,³, Stevens¹,², Whitman¹,²,³,8, Yakima¹,²,³. Seasonality: Jun¹,²,³, Jul¹,²,³,4, Aug¹,²,³,4, Sep³ (2016¹,²). Collections: BBSL, JRYA, SEMC, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Erigeron speciosus*⁵9, *Senecio triangularis*⁵9, *Taraxacum officinale*⁵9; FABACEAE: *Trifolium repens*³,59; ONAGRACEAE: *Gayophytum diffusum* ssp. *parviflorum*³,59; PLANTAGINACEAE: *Penstemon albertinus*⁸, *P. serrulatus*³, *P. washingtonensis*⁵9; ROSACEAE: *Fragaria virginiana* ssp. *platypetala*⁵9
- **545.** *Osmia* (*Melanosmia*) *pikei* Cockerell, **190**7. County records: King^{1,2,3,40}, Okanogan^{1,2,3,59}, Thurston⁴⁰. Seasonality: Apr^{1,2}, May^{1,2,3}, Jul^{1,2,3} (2004^{1,2,3,59}). Collections: BBSL, EMEC. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Balsamorhiza sagittata*⁸; ROSACEAE: *Rubus ursinus*³
- 546. Osmia (Melanosmia) proxima Cresson, 1864. County records: Clark^{1,2}, Gar-field^{1,2,3,46}, Jefferson^{1,2}, Klickitat^{1,2}, Okanogan^{1,2,3,59}, San Juan¹³⁶, Skamania^{1,2}, Spokane^{1,2,3}, Stevens^{1,2}, Wahkiakum^{1,2}, Whitman^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3}, Jul^{1,2}, Aug^{1,2,3} (2017¹³⁶). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: CONVOL-VULACEAE: Calystegia soldanella¹³⁶; FABACEAE: Astragalus miser³; ROSACE-AE: Rubus bifrons¹³⁶
- **547.** †\$ *Osmia* (*Melanosmia*) *pulsatillae* Cockerell, 1907. County records: King^{1,2,3}, Whitman^{1,2,3}. Seasonality: May^{1,2} (2003^{1,2,3}). Collections: BBSL, OSUC, SEMC. Conservation status: G2 Imperiled globally (NatureServe 2024)
- **548.** *Osmia* (*Melanosmia*) *pusilla* Cresson, **1864**. County records: Benton^{1,2,3}, Clallam³, Clark^{1,2}, Cowlitz^{1,2,3}, Garfield^{1,2,3,46}, Klickitat^{1,2}, Okanogan^{1,2,3,4,59}, Pierce^{1,2,3}, Skamania^{1,2}, Spokane^{1,2}, Stevens^{1,2}, Whatcom^{1,2,3}, Whitman^{1,2,3,6}. Seasonality: May^{1,2,3}, Jun^{1,2,3,6}, Jul^{1,2,3,4,6}, Aug^{1,2,3}, Sep^{1,2} (2016^{1,2}). Collections: BBSL, INHS, JRYA, WSDA. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Anaphalis margaritacea*^{3,59},

- Erigeron speciosus^{3,59}, Taraxacum officinale⁵⁹; BORAGINACEAE: Myosotis laxa⁵⁹; FABACEAE: Astragalus chaborasicus³, Lupinus sericeus⁵⁹, Onobrychis³, Trifolium repens^{3,59}; HYDROPHYLLACEAE: Phacelia leptosepala⁵⁹; PLANTAGINACEAE: Penstemon confertus⁵⁹; POLEMONIACEAE: Polemonium pulcherrimum⁵⁹; ROSACEAE: Fragaria virginiana ssp. platypetala^{3,59}, Potentilla gracilis^{3,59}
- **549.** *Osmia* (*Melanosmia*) *raritatis* Michener, **1957**. County records: Klickitat^{1,2}, Spokane^{1,2}, Yakima⁴⁰. Seasonality: Apr^{1,2}, May^{1,2,40} (2012^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **550.** † *Osmia* (*Melanosmia*) *rawlinsi* Sandhouse, **1939**. County records: Chelan^{1,2,3}, Grant^{1,2,3}, Walla Walla^{1,2}, Yakima^{1,2,3}. Seasonality: Apr^{1,2,3}, May^{1,2,3} (2012^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: LAMIACEAE: *Salvia dorrii*³
- **551.** *Osmia* (*Melanosmia*) *regulina* Cockerell, **1911**. County records: Garfield^{1,2,3,46}, Klickitat^{1,2}, Walla Walla^{1,2,3,71}. Seasonality: Jun^{1,2,3}, Aug^{1,2,3} (2012^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: *Astragalus cicer*³
- **552.** *Osmia* (*Melanosmia*) *sculleni* Sandhouse, **1939**. County records: Klickitat^{1,2}, Okanogan^{1,2,3,59}, Spokane^{1,2}. Seasonality: Apr^{1,2}, May^{1,2}, Jun^{1,2}, Jul^{1,2}, Aug^{1,2,3} (2015^{1,2}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Arnica cordifolia*^{3,59}
- **553.** † *Osmia* (*Melanosmia*) *sedula* Sandhouse, **1924**. County records: Klickitat^{1,2}, Thurston^{1,2}. Seasonality: May^{1,2}, Jun^{1,2} (2011^{1,2}). Collections: BBSL. [= *Osmia claremontensis* Michener, 1936]. Conservation status: G5 Secure globally (NatureServe 2024)
- **554.** *Osmia* (*Melanosmia*) *simillima* Smith, **1853**. County records: Clallam³, Garfield^{1,2,3,46}, Island^{1,2,3}, Jefferson^{1,2}, King^{1,2,3}, Pacific^{1,2,3}, Spokane^{1,2}, Stevens^{1,2}, Thurston^{1,2,3}, Whatcom⁷, Whitman^{1,2,3,6}, Yakima^{1,2,3}. Seasonality: Apr^{1,2}, May^{1,2,3}, Jun^{1,2,3,6,7}, Jul^{1,2,3}, Aug^{1,2,3} (2016^{1,2}). Collections: BBSL, EMEC, JRYA, SEMC, WSDA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: FABACEAE: *Astragalus chaborasicus*³, *Lathyrus japonicus*⁷, *Trifolium repens*³
- **555.** *Osmia* (*Melanosmia*) *tanneri* Sandhouse, **1939**. County records: Okanogan^{1,2,3,4,59}. Seasonality: Jul^{1,2,3,4}, Aug^{1,2} (2004^{1,2,3,4,59}). Collections: BBSL. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: FABACEAE: *Oxytropis campestris* var. *cusickii*⁵⁹; PLANTAGINACEAE: *Penstemon washingtonensis*⁵⁹; POLEMONIACEAE: *Polemonium pulcherrimum*⁵⁹; ROSACEAE: *Dryas hookeriana*⁵⁹
- **556.** †\$ *Osmia* (*Melanosmia*) *thysanisca* Michener, **1957**. County records: Whitman⁷, Yakima^{1,2}. Seasonality: Apr⁷, Jul^{1,2} (1973⁷). Collections: SEMC, WSUC. Conservation status: G3 Vulnerable globally (NatureServe 2024)
- **557.** Osmia (Melanosmia) trevoris Cockerell, 1897. County records: Benton^{1,2,3}, Clark^{1,2}, Columbia^{1,2,3}, Franklin⁹⁷, Garfield^{1,2,3,4,46}, King^{1,2,3,129}, Kittitas^{1,2,3}, Klickitat^{1,2}, Okanogan^{1,2,3,4,59}, Skamania^{1,2}, Spokane^{1,2,3}, Stevens^{1,2}, Thurston^{1,2,3}, Walla Walla^{1,2,3}, Whitman^{1,2,3,6,7}. Seasonality: Apr^{1,2,3}, May^{1,2,3,4,129}, Jun^{1,2,3,4,6,7},

- Jul^{1,2,3,6}, Aug^{1,2,3,4} (2016^{1,2}). Collections: BBSL, INHS, NMNH, PCYU, SEMC, WSDA, WSUC. **Type**. USA, Washington, King County, Seattle; 19 May 1896; Type No. 1895, USNM ENT 00537003. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Erigeron corymbosus*^{3,59}, *E. speciosus*^{3,59}; FABACEAE: *Astragalus*³
- **558.** †\$ *Osmia* (*Melanosmia*) *trifoliama* Sandhouse, 1939. County records: Klickitat^{1,2}, San Juan^{1,2,3}. Seasonality: Jul^{1,2}, Aug^{1,2} (2011^{1,2}). Collections: BBSL, PWRC. Conservation status: G3 Vulnerable globally, possibly extirpated in Washington (NatureServe 2024)
- **559.** *Osmia* (*Melanosmia*) *tristella* Cockerell, 1897. County records: Chelan³, Clallam¹,2³, King¹,2³, Okanogan¹,2³,4,59, Pierce¹,2³, Spokane¹,², Stevens¹,², Thurston¹,2³,129, Walla Walla³, Yakima¹,2³, Seasonality: Jan¹,², Mar¹,², Apr¹,2³, May¹,2³, Jun¹,2³, Jul¹,2³, Aug¹,2³,4 (2015¹,2). Collections: BBSL, EMEC, JRYA, NMNH, WSUC. **Type**. USA, Washington, Thurston County, Olympia; Kincaid; Type No. 6863, USNM ENT 00537005. Conservation status: G4 Apparently Secure globally (NatureServe 2024). Floral records: ASTERACEAE: *Agoseris glauca* var. *dasycephala⁵*, *Arnica cordifolia⁵*, *Erigeron speciosus³,⁵*, *Senecio triangularis⁵*, *Taraxacum officinale⁵*; FABACEAE: *Lupinus⁵*, *Trifolium pratense³,⁵*, *T. repens⁵*; HYDRO-PHYLLACEAE: *Phacelia leptsepala⁵*; ONAGRACEAE: *Gayophytum diffusum* spp. *parviflorum³,⁵*, OROBRANCHACEAE: *Castilleja miniata⁵*, PLANTAGINACEAE: *Penstemon³*, *P. confertus⁵*; POLEMONIACEAE: *Polemonium pulcherrimum³,⁵*; ROSACEAE: *Fragaria virginiana* ssp. *platypetala⁵*, *Potentilla gracilis⁵*
- **560.** *Osmia* (*Melanosmia*) *unca* Michener, 1937. County records: Benton^{1,2}, Garfield⁴⁶, Walla Walla^{1,2,3}, Whitman^{1,2,3,101}. Seasonality: Apr^{1,2}, May^{1,2,3,101}, Jun^{1,2,3} (2014^{1,2}). Collections: BBSL, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **561.** *Osmia* (*Melanosmia*) *vandykei* Sandhouse, 1924. County records: Benton^{1,2}, Klickitat^{1,2}, Spokane^{1,2}, Whitman^{1,2,3,40}. Seasonality: Mar^{1,2,3}, Apr^{1,2}, May^{1,2}, Jun^{1,2} (2016^{1,2}). Collections: BBSL, SEMC. Conservation status: G4 Apparently Secure globally (NatureServe 2024)
- **562.** †* *Osmia* (*Osmia*) *cornifrons* (Radoszkowski, 1887). County records: King², Thurston¹,². Seasonality: Mar¹,², Apr² (2021¹,²). Collections: BugGuide, iNaturalist. Conservation status: G5 Secure globally (NatureServe 2024)
- 563. Osmia (Osmia) lignaria Say, 1837. County records: Adams³, Chelan^{1,2,3}, Clallam^{1,2,3}, Clark^{1,2}, Cowlitz^{1,2}, Ferry², Grant^{1,2,3}, Island^{1,2,3}, Jefferson^{1,2}, King^{1,2,3}, Kitsap^{1,2,3}, Klickitat^{1,2}, Mason^{1,2}, Okanogan^{1,2,3}, Pacific^{1,2,3}, Pierce^{1,2,3}, San Juan^{1,2,3}, Skagit^{2,3,10}, Snohomish^{1,2,3}, Spokane^{1,2,3}, Stevens^{1,2,3}, Thurston^{1,2,3,6,133}, Walla Walla^{2,3}, Whatcom^{1,2,3}, Whitman^{1,2,3}, Yakima^{1,2,3}. Seasonality: Feb^{1,2}, Mar^{1,2,3}, Apr^{1,2,3}, May^{1,2,3,133}, Jun^{1,2,3,6}, Jul^{1,2}, Aug^{1,2,3}, Nov³, Dec^{1,2} (2022^{1,2}). Collections: BBSL, BugGuide, CUIC, iNaturalist, INHS, NCSU, PMNH, SEMC, UCMC, WSDA, WSUC. Conservation status: G5 Secure globally (NatureServe 2024). Floral records: ASPARA-GACEAE: Camassia quamash¹³³; ASTERACEAE: Arnica cordifolia⁸, Taraxacum³; FABACEAE: Astragalus sinuatus³; HYDROPHYLLACEAE: Phacelia heterophylla⁸

Genus Protosmia Ducke

564. *Protosmia* (*Chelostomopsis*) *rubifloris* (Cockerell, 1898). County records: Chelan^{1,2,130}, King^{1,2,96}, **Okanogan**^{1,2}, Thurston^{1,2,104}. Seasonality: Apr^{130,104}, May^{1,2}, Jun^{1,2} (2021^{1,2}). Collections: BBSL, iNaturalist, NMNH. [= *Chelynia rubifloris* Cockerell, 1898]. **Holotype**. USA, Washington, King County, Seattle. Floral records: BORAGINACEAE: *Hackelia venusta*⁷

Melittidae: Melittinae: Macropidini

Genus Macropis Panzer

565. \$‡ Macropis (Macropis) steironematis opaca Michener, 1938. County records: Yakima^{1,2,45,112}. Seasonality: Jul^{1,2,45,112} (1882^{1,2,45,112}). Collections: MCZ. Holotype. USA, Washington Territory, Yakima River, Morgan's Ferry; 1 July 1882; MCZ Type 23415, MCZ-ENT 00023415. Conservation status: Critically Endangered (National Research Council 2007)

Bee species likely to occur in Washington

Andrenidae

Andrena (Achandrena) angustella Cockerell, 1936

Andrena (Andrena) edwardsi Viereck, 1916

Andrena (Callandrena) vulpicolor Cockerell, 1897

Andrena (Cnemidandrena) apacheorum Cockerell, 1897

Andrena (Derandrena) vandykei Cockerell, 1936

Andrena (Diandrena) ablegata (Cockerell, 1922)

Andrena (Melandrena) regularis Malloch, 1917

Andrena (Parandrena) concinnula Cockerell, 1898

Andrena (Parandrena) gibberis Viereck, 1924

Andrena (Parandrena) papagorum Viereck & Cockerell, 1914

Andrena (Ptilandrena) penemisella LaBerge & Ribble, 1975

Andrena (Scaphandrena) cruciferarum Ribble, 1974

Andrena (Scaphandrena) plana Viereck, 1904

Calliopsis (Nomadopsis) anthidius Fowler, 1899

Panurginus beardsleyi (Cockerell, 1904)

Perdita (Perdita) claypolei limatula Timberlake, 1962*

Perdita (Perdita) exclamans Cockerell, 1895

^{*} We are aware of unpublished records for these species in Washington which could not be included in this checklist.

Perdita (Perdita) fallax Cockerell, 1896

Perdita (Perdita) nuda Cockerell, 1896

Perdita (Perdita) oreophila Timberlake, 1964

Perdita (Perdita) stottleri Cockerell, 1896

Perdita (Perdita) subfasciata Cockerell, 1897

Perdita (Perdita) zebrata Cresson, 1878

Perdita (Pygoperdita) mormonica Timberlake, 1956

Protandrena (Pterosarus) innuptus (Cockerell, 1896)

Protandrena (Pterosarus) irregularis (Cockerell, 1922)

Apidae

Anthophora (Micranthophora) maculifrons Cresson, 1879

Anthophora (Pyganthophora) lesquerellae (Cockerell, 1896)

Biastes (Neopasites) fulviventris (Cresson, 1878)*

Bombus (Psithyrus) variabilis (Cresson, 1872)*

Eucera (Synhalonia) chrysophila (Cockerell, 1914)

Eucera (Synhalonia) cordleyi (Viereck, 1905)

Melecta edwardsii Cresson, 1879

Melissodes (Callimelissodes) lustrus LaBerge, 1961

Melissodes (Callimelissodes) minusculus LaBerge, 1961

Melissodes (Callimelissodes) nigracauda LaBerge, 1961*

Melissodes (Eumelissodes) confusus Cresson, 1878

Melissodes (Melissodes) tepidus yumensis LaBerge, 1956

Nomada accepta Cresson, 1878

Nomada calloxantha Cockerell, 1921

Nomada citrina rufula Cockerell, 1903

Nomada depressa Cresson, 1863

Nomada erythraea Dalla Torre, 1896

Nomada hemphilli Cockerell, 1903

Nomada opposita Cresson, 1878**

Nomada scitiformis Cockerell, 1903

Nomada taraxacella Cockerell, 1903

Nomada ultimella Cockerell, 1903

Nomada valida Smith, 1854

Nomada vicinalis vicinalis Cresson, 1878

^{**} Mayer et al. (2000) states that their Moscow Mountain site is located in southeastern Washington; however, further investigation revealed that the Moscow Mountain site may, in fact, be located across the border in Idaho.

^{***} Discover Life has synonymized these species with other species already in the checklist without reference or explanation. As we are not aware of any publications that synonymize these species, these species are kept separate here.

Triepeolus balteatus Cockerell, 1921 Triepeolus bihamatus (Cockerell, 1907) Triepeolus utahensis (Cockerell, 1921) Xenoglossa (Peponapis) pruinosa (Say, 1837)

Halictidae

Agapostemon (Agapostemon) melliventris Cresson, 1874 Dieunomia nevadensis (Cresson, 1874) Dufourea dilatipes Bohart, 1948* Lasioglossum (Dialictus) abundipunctum Gibbs, 2010 Lasioglossum (Dialictus) pavoninum (Ellis, 1913) Lasioglossum (Dialictus) planatum (Lovell, 1905) Lasioglossum (Dialictus) sagax (Sandhouse, 1924) Lasioglossum (Dialictus) subversans (Mitchell, 1960) Lasioglossum (Dialictus) yukonae Gibbs, 2010 Lasioglossum (Hemihalictus) diatretum (Vachal, 1904) Lasioglossum (Hemihalictus) pulveris (Cockerell, 1930) Lasioglossum (Lasioglossum) paraforbesii McGinley, 1986 Lasioglossum (Sphecodogastra) nigrum (Viereck, 1903) Lasioglossum (Sphecodogastra) peraltum (Cockerell, 1901) Sphecodes confertus Say, 1837** Sphecodes eustictus Cockerell, 1906 Sphecodes lautipennis Cockerell, 1908 Sphecodes patruelis Cockerell, 1913

Megachilidae

Anthidiellum (Loyolanthidium) ehrhorni (Cockerell, 1900) Anthidium (Anthidium) maculosum Cresson, 1878 Anthidium (Anthidium) palliventre Cresson, 1878 Anthidium (Anthidium) placitum Cresson, 1879 Ashmeadiella (Ashmeadiella) gillettei Titus, 1904 Atoposmia (Atoposmia) abjecta (Cresson, 1878) Atoposmia (Atoposmia) oregona (Michener, 1943) Coelioxys (Synocoelioxys) alternatus Say, 1837 Coelioxys (Synocoelioxys) apacheorum Cockerell, 1900 Coelioxys (Boreocoelioxys) banksi Crawford, 1914 Coelioxys (Cyrtocoelioxys) deani Cockerell, 1909 Coelioxys (Paracoelioxys) funerarius Smith, 1854 Coelioxys (Synocoelioxys) hunteri Crawford, 1914 Coelioxys (Boreocoelioxys) porterae Cockerell, 1900 Hoplitis (Proteriades) boharti (Timberlake & Michener, 1950) Hoplitis (Proteriades) linsdalei Michener, 1947

Megachile (Litomegachile) gentilis Cresson, 1872
Megachile (Megachile) inermis Provancher, 1888
Megachile (Litomegachile) lippiae Cockerell, 1900

Megachile (Chelostomoides) odontostoma Cockerell, 1924
Megachile (Megachiloides) pseudonigra Mitchell, 1927
Megachile (Pseudocentron) sidalceae Cockerell, 1897
Osmia (Melanosmia) cyaneonitens Cockerell, 1906
**
Osmia (Melanosmia) gaudiosa Cockerell, 1907
Osmia (Melanosmia) indeprensa Sandhouse, 1939
**
Osmia (Osmia) ribifloris Cockerell, 1900
Osmia (Melanosmia) tarsata Provancher, 1888
Stelis (Stelis) interrupta Cresson, 1879

Melittidae

Hesperapis (Carinapis) carinata Stevens, 1919 Macropis (Macropis) nuda (Provancher, 1882)

Records excluded from analysis

We highlight 38 records as questionable and propose that they require more research to confirm their presence in Washington state. Many of these would be significant and surprising range expansions. Most of these records were obtained from data made available through GBIF, Discover Life, or BOLD, and could represent species that are mislabeled or misidentified in their parent collections. A few records were derived from identifications recorded in older revisions and may reflect outdated taxonomy. We do not include these records in the total bees recorded by state or county and highlight them here to ensure they are treated with appropriate caution.

Andrenidae

1.! Andrena (Andrena) mandibularis Robertson, 1892 – Yakima^{2,3}; Apr^{2,3} (1987^{2,3}); INHS

Comments. This species is generally eastern in distribution.

2. ! Andrena (Andrena) tridens Robertson, 1902 – Kittitas^{2,3}; May^{2,3} (1989^{2,3}); INHS

Comments. This species is generally eastern in distribution.

^{****} Sheffield et al. (2011) raised *Megachile lippiae* from a subspecies of *Megachile texana*. It is possible records of *M. lippiae* in Washington already exist under the name *M. texana*.

3.! Andrena (Cnemidandrena) luteihirta Donovan, 1977 – Benton⁷; Jul⁷ (1994⁷); WSUC

Comments. This species is generally restricted to southern California, west of the Sierra Nevada mountains. A positive identification requires examination of genitalia; this specimen (which is a male with the genitalia hidden) is more likely the closely related *A. surda* which occurs east and north of the Sierra Nevada range.

4. ! Andrena (Conandrena) cheyennorum Viereck and Cockerell, 1914 – Whitman^{2,3}; (2003^{2,3}); BBSL

Comments. This species is generally southwestern in distribution

5. ! Andrena (Melandrena) sayi Robertson, 1891 – Snohomish^{1,3}; Aug^{1,3} (1985^{1,3}); INHS

Comments. This species is generally eastern in distribution.

6.! Andrena (Onagrandrena) rozeni Linsley and MacSwain, 1955 – King^{2,3}; May^{2,3} (1914^{2,3}); INHS

Comments. This species is generally southwestern in distribution.

7.! Andrena (Ptilandrena) erigeniae Robertson, 1891 – Kittitas^{2,3}; Apr^{2,3} (1989^{2,3}); INHS

Comments. This species is generally eastern in distribution.

8.! Calliopsis (Nomadopsis) obscurella Cresson, 1879 – Franklin¹¹⁸; May¹¹⁸ (1896¹¹⁸)

Comments. Older identification - Rozen (1958) recommends these records be taken with caution until the specimens have either been examined or other records in the distributional gap are confirmed.

9. ! Perdita (Perdita) aridella Timberlake, 1960 – Benton^{1,2}; May^{1,2}, Jun^{1,2}, Aug^{1,2} (2015^{1,2}); BBSL

Comments. This species is generally southwestern in distribution.

10. ! Perdita (Perdita) ashmeadi Cockerell, 1899 – Columbia^{1,2,4}; PCYU

Comments. This species is generally southwestern in distribution. Additionally, P. ashmeadi is a specialist on Prosopis spp. (Simpson and Neff 1987) which do not occur in Washington state.

Apidae

11. ! Anthophora (Clisodon) furcata (Panzer, 1798) – Grays Harbor^{1,2}, Pierce^{1,2}; Jul^{1,2} (1935^{1,2}); SEMC

Comments. This species is generally European in distribution. However, *A. terminalis* was sometimes considered a subspecies of *A. furcata* (Muesebeck et al. 1951; Hurd 1979) and sometimes a full species (Mitchell 1962). These records are likely older identifications of *A. terminalis*.

12. ! Anthophorula (Anthophorula) rufiventris (Timberlake, 1947) – no location reported^{2,4}; PCYU

Comments. This species is generally southwestern in distribution.

13. ! Bombus (Alpinobombus) polaris Curtis, 1835 – Thurston^{1,2}, Yakima^{1,2}; Jul^{1,2}, Aug^{1,2} (1971^{1,2}); NMNH; Data Deficient (Hatfield et al. 2016b)

Comments. This species is generally arctic in distribution.

14. ! *Bombus* (*Bombus*) *terricola* Kirby, **1837** – **San Juan**^{1,2,3}, **Whitman**^{1,2}, **Yakima**^{1,2}; May^{1,2,3}, Aug^{1,2} (1959^{1,2}); INHS, PMNH; Vulnerable (National Research Council 2007; Hatfield et al. 2015c); G3 – Vulnerable globally (NatureServe 2024)

Comments. Milliron (1971) considered *Bombus occidentalis* a subspecies of *B. terricola*; however, current taxonomy classifies *B. occidentalis* as a distinct species (e.g., Bertsch et al. 2010; Williams et al. 2012; Owen and Whidden 2013). It is probable that these records represent *B. occidentalis*.

15. ! *Bombus (Psithyrus) ashtoni* (Cresson, 1864) – Whitman^{1,2,3}; Oct^{1,2,3} (1960^{1,2,3}); BBSL; Data Deficient (Hatfield et al. 2016c); G4 – Apparently Secure globally (NatureServe 2024)

Comments. This species is generally northern and eastern in distribution.

16. ! Bombus (Pyrobombus) ternarius Say, 1837 – Whitman¹; Oct¹ (1950¹); PSUC; Least Concern (Hatfield et al. 2014i)

Comments. This species is generally northeastern and northcentral in distribution.

17. ! Bombus (Subterraneobombus) borealis Kirby, 1837 – Clallam^{1,2,3}; Sep^{1,2,3} (1955^{1,2,3}); CNC; Least Concern (Hatfield et al. 2015o)

Comments. This species is generally northeastern and northcentral in distribution.

18. ! Bombus (Thoracobombus) pensylvanicus (DeGeer, 1773) – Mason^{1,2,3}, Thurston^{1,2,3}; Aug^{1,2,3} (1908^{1,2,3}); BBSL; Vulnerable (Hatfield et al. 2015q)

Comments. This species is generally eastern and southwestern in distribution.

19. ! *Habropoda depressa* Fowler, **1899** – Walla Walla^{1,2}; May^{1,2} (1937^{1,2}); SEMC; G4 – Apparently Secure globally (NatureServe 2024)

Comments. This species is generally southwestern in distribution.

20.! *Melissodes* (*Eumelissodes*) *bicoloratus* LaBerge, 1961 – Benton^{1,2}; Jun^{1,2} (2014^{1,2}); BBSL

Comments. This species is generally southwestern in distribution.

21. ! *Melissodes* (*Eumelissodes*) *druriellus* (Kirby, **1802**) [= *Melissodes rustica* (Say, 1837)] – **Benton**^{1,2}; Jun^{1,2} (2014^{1,2}); BBSL

Comments. This species is generally eastern and midwestern in distribution.

22.! *Melissodes (Eumelissodes) utahensis* LaBerge, **1961** – Yakima^{2,3}; Sep^{2,3} (1993^{2,3}); INHS

Comments. This species is generally southwestern in distribution.

23.! *Nomada argentea* (Schwarz, 1966) – Walla Walla^{1,2,3}; Jun^{1,2,3} (1951^{1,2}); BBSL

Comments. This species is Middle Eastern in distribution.

24.! *Triepeolus lunatus* (Say, 1824) – Klickitat^{1,2}; Aug^{1,2} (2011^{1,2}); BBSL

Comments. This species is generally eastern and midwestern in distribution.

25. ! *Triepeolus verbesinae* (Cockerell, 1897) – Klickitat 1,2 , Stevens 3 ; Jul 3 , Sep 1,2 (2011 1,2); BBSL, NMNH

Comments. This species is generally southwestern in distribution.

Halictidae

26. ! Agapostemon (Agapostemon) sericeus (Forster, 1771) [= Agapostemon radiatus Say, 1837] – **Douglas**^{1,2}, Franklin¹¹⁹; May^{1,2} (1905^{1,2}); FMNH

Comments. This species is normally distributed east of the Rocky Mountains.

27.! *Augochloropsis* (*Paraugochloropsis*) *sumptuosa* (Smith, 1853) – Spokane^{1,2,3}; Jun^{1,2}, Jul^{1,2} (2007^{1,2,3}); BBSL

Comments. This species is generally eastern and midwestern in distribution.

28.! Halictus (Nealictus) parallelus Say, 1837 – Kittitas^{1,2}; Aug^{1,2} (1967^{1,2}); FMNH

Comments. This species is generally eastern and midwestern in distribution.

Megachilidae

29. ! *Anthidium* (*Anthidium*) *collectum* **Huard, 1896** – G3 – Vulnerable globally (NatureServe 2024)

Comments. Gonzalez and Griswold (2013) make note of an isolated record from south central Washington well outside the expected distribution, but do not provide a specific locality.

30. ! Coelioxys (Boreocoelioxys) insita Cresson, 1872 – Columbia^{1,2,4}; PCYU

Comments. This species is generally midwestern in distribution.

31. ! *Dianthidium* (*Dianthidium*) *dubium* H. F. Schwarz, 1928 – Spokane^{1,2}; Jun^{1,2}, Jul^{1,2} (2015^{1,2}); BBSL

Comments. This species is generally southwestern in distribution.

31a. ! *Dianthidium (Dianthidium) dubium mccrackenae* Timberlake, 1943 – Benton^{1,2}, Walla Walla^{1,2}; Jun^{1,2}, Jul^{1,2} (2014^{1,2}); BBSL

Comments. This subspecies is generally southwestern in distribution.

32.! *Hoplitis* (*Hoplitis*) *samarkanda* (Warncke, **1991**) – Garfield^{1,2,3}; (1998^{1,2,3}); BBSL

Comments. This species is generally Palearctic in distribution.

33.! *Megachile* (*Xanthosarus*) *latimanus* Say, 1823 [= *Megachile vidua* Smith, 1853] – San Juan²⁴, Thurston²⁴, **Whitman**^{1,2}, **Yakima**^{1,2}; Jul^{1,2,24}, Aug²⁴ (1949^{1,2}); CMNH, MCZ; G5 – Secure globally (NatureServe 2024)

Comments. This species is generally only found east of the 100^{th} meridian. *Megachile latimanus* and *M. perihirta* are considered an eastern and western sibling pair with only subtle characters distinguishing *M. latimanus* females from *M. perihirta* females.

34.! *Osmia (Diceratosmia) subfasciata* Cresson, **1872** – King^{1,2,3}; Jul^{1,2,3} (1929^{1,2,3}); BBSL; G5 – Secure globally (NatureServe 2024); LAMIACEAE: *Prunella vulgaris*³

Comments. This species is generally southern in distribution.

35.! Osmia (Melanosmia) crassa Rust and Bohart, 1986 – Walla Walla^{1,2,3}; May^{1,2,3} (1937^{1,2,3}); BBSL

Comments. This species is generally southwestern in distribution.

36. ! *Osmia* (*Melanosmia*) *granulosa* Cockerell, 1911 – Walla Walla^{2,3}; May^{2,3} (1937^{2,3}); BBSL; G4 – Apparently Secure globally (NatureServe 2024)

Comments. Hurd (1979) synonymized *O. granulosa* with *O. exigua* without explanation. As this record and a single record from Wyoming are the only records of *O. granulosa* outside of California, NatureServe (2024) suggests that these records could possibly be *O. exigua*.

37.! *Osmia (Melanosmia) phenax* Cockerell, **1897** [= *Osmia titusi* Cockerell, 1905] – **Stevens**^{1,2}; Jun^{1,2}, Jul^{1,2} (2015^{1,2}); BBSL

Comments. This species is generally southwestern in distribution.

38. ! Stelis (Stelis) robertsoni Timberlake, 1941 – Spokane¹; Jul¹ (2015¹); BBSL

Comments. This species is generally southwestern in distribution.

Acknowledgements

We are grateful to Dr. Katie Buckley, Dr. Karen Wright, and the Washington State Pollinator program for ongoing support and input. We thank Nate Green, Dr. Thor Hansen, and Dr. Julie Combs for the use of records from their personal collections, and the National Park Service for the use of records from their data. We recognize Dr. Richard Zack, Curator at the WSUC, for the decades of effort in surveys of the state of Washington. His work has added many county records from the Hanford site in Benton County. We also thank Dr. Julie Combs and Dr. Jack Neff for suggestions on this manuscript. Funding for this work was provided by the Washington State Legislature as part of SSB 5253 and from NSF DBI-2216934 to EAM.

References

- Adlakha RL (1969) A systematic revision of the bee genus *Diadasia* Patton in America north of Mexico (Hymenoptera: Anthophoridae). PHD Thesis. University of California (Davis).
- Akre RD, Cutts EP, Zack RS, Klostermeyer EC (1982) Gynandromorphs of *Megachile rotundata* (Fab.) (Hymenoptera: Megachilidae). Entomological News 93(4): 85–94.
- Andrikopoulos CJ, Cane JH (2018) Comparative pollination efficacies of five bee species on raspberry. Journal of Economic Entomology 111(6): 2513–2519. https://doi.org/10.1093/jee/toy226
- Ascher JS, Pickering J (2022) Discover Life bees species guide and world checklist (Hymenoptera: Apoidea: Anthophila). www.discoverlife.org/mp/20q?search=Apoidea [accessed on 19 October 2022].
- Baker JR (1975) Taxonomy of five Nearctic subgenera of *Coelioxys* (Hymenoptera: Megachilidae). The University of Kansas Science Bulletin 50(12): 649–730.
- Bertsch A, Hrabé de Angelis M, Przemeck GKH (2010) A phylogenetic framework for the North American bumblebee species of the subgenus *Bombus* sensu stricto (*Bombus affinis*, *B. franklini*, *B. moderatus*, *B. occidentalis* and *B. terricola*) based on mitochondrial DNA markers (Hymenoptera: Apidae: *Bombus*). Beitraege zur Entomologie 60: 229–242. https://doi.org/10.21248/contrib.entomol.60.1.229-242
- Best L, Feuerborn C, Holt J, Kincaid S, Marshall CJ, Melathopolous A, Robinson SVJ (2021) Oregon Bee Atlas: native bee findings from 2018. Catalog of the Oregon State Arthropod Collection 5(1): 1–12. https://doi.org/10.5399/osu/cat_osac.5.1.4647
- Best L, Engler JD, Feuerborn C, Larsen J, Lindh B, Marshall CJ, Melathopoulos A, Kincaid S, Robinson SVJ (2022) Oregon Bee Atlas: Wild bee findings from 2019. Catalog of the Oregon State Arthropod Collection 6(1): 1–13. https://doi.org/10.5399/osu/cat_osac.6.1.4906
- Black AE, Strand E, Wright RG, Scott JM, Morgan P, Watson C (1998) Land use history at multiple scales: implications for conservation planning. Landscape and Urban Planning 43: 49–63. https://doi.org/10.1016/S0169-2046(98)00096-6
- Bohart GE (1948) New North American bees of the genus *Dufourea* (Hymenoptera: Halictidae). Annals of the Entomological Society of America 41: 119–136. https://doi.org/10.1093/aesa/41.1.119
- Bossert S, Murray EA, Almeida EAB, Brady SG, Blaimer BB, Danforth BN (2019) Combining transcriptomes and ultraconserved elements to illuminate the phylogeny of Apidae. Molecular Phylogenetics and Evolution 130: 121–131. https://doi.org/10.1016/j. ympev.2018.10.012
- Bossert S, Copeland RS, Sless TJL, Branstetter MG, Gillung JP, Brady SG, Danforth BN, Policarová J, Straka J (2020) Phylogenomic and morphological reevaluation of the bee tribes Biastini, Neolarrini, and Townsendiellini (Hymenoptera: Apidae) with description of three new species of *Schwarzia*. Insect Systematics and Diversity 4(6): 1–29. https://doi.org/10.1093/isd/ixaa013
- Bouseman JK, LaBerge WE (1978) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part IX. Subgenus *Melandrena*. Transactions of the American Entomological Society 104(3/4): 275–389.

- Broemeling DK (1988) A revision of the *Nomada* subgenus *Nomadita* of North America (Hymenoptera: Anthophoridae). Pan-Pacific Entomologist 64(4): 321–344.
- Brooks RW (1983) Systematics and bionomics of *Anthophora*: the Bomboides Group and species groups of the new world. University of California Publications in Entomology 98: 1–86.
- Brown MJF, Paxton RJ (2009) The conservation of bees: a global perspective. Apidologie 40: 410–416. https://doi.org/10.1051/apido/2009019
- Cane JH (2008) A native ground-nesting bee (*Nomia melanderi*) sustainably managed to pollinate alfalfa across an intensively agricultural landscape. Apidologie 39: 315–323. https://doi.org/10.1051/apido:2008013
- Cane JH (2011) Meeting wild bee's needs on western US rangelands. Rangelands 33(3): 27–32. https://doi.org/10.2111/1551-501X-33.3.27
- Cane JH (2024) The extraordinary alkali bee, *Nomia melanderi* (Halictidae) the world's only intensively managed ground-nesting bee. Annual Review of Entomology 69: 99–116. https://doi.org/10.1146/annurev-ento-020623-013716
- Cane JH, Eickwort GC, Wesley FR, Spielholz J (1983) Foraging, grooming and mate-seeking behaviors of *Macropis nuda* (Hymenoptera, Melittidae) and use of *Lysimachia ciliata* (Primulaceae) oils in larval provisions and cell linings. The American Midland Naturalist 110(2): 257–264. https://doi.org/10.2307/2425267
- Carpenter FM (1931) Insects from the Miocene (Latah) of Washington. Annals of the Entomological Society of America 24(2): 307–309. https://doi.org/10.1093/aesa/24.2.307
- Chang W, Cheng J, Allaire J, Sievert C, Schloerke B, Xie Y, Allen J, McPherson J, Dipert A, Borges B (2024) shiny: Web Application Framework for R. R package version 1.8.1.1, https://CRAN.R-project.org/package=shiny
- Cheng J, Schloerke B, Karambelkar B, Xie Y (2024) leaflet: Create Interactive Web Maps with the JavaScript 'Leaflet' Library. R package version 2.2.2. https://CRAN.R-project.org/package=leaflet
- Clement SL, Griswold TL, Rust RW (2006) Bee associates of flowering *Astragalus* and *Ono-brychidis* genebank accessions at a Snake River site in Eastern Washington. Journal of the Kansas Entomological Society 79(3): 254–260. https://doi.org/10.2317/0505.02.1
- Cockerell TDA (1903) North American bees of the genus *Nomada*. Proceedings of the Academy of Natural Sciences of Philadelphia 55: 559–614.
- Cockerell TDA (1904) II Some parasitic bees. Annals and Magazine of Natural History 13: 33–42. https://doi.org/10.1080/00222930409487052
- Cockerell TDA (1906a) Descriptions and records of bees XII. Annals and Magazine of Natural History 18: 69–75. https://doi.org/10.1080/00222930608562581
- Cockerell TDA (1906b) Some bees from Washington State. The Canadian Entomologist 38: 277–282. https://doi.org/10.4039/Ent38277-8
- Cockerell TDA (1910) Some bees of the genus *Nomada* from Washington State. Psyche 17(3): 91–98. https://doi.org/10.1155/1910/10935
- Cockerell TDA (1911) Descriptions and records of bees XXXIX. Annals and Magazine of Natural History 8: 660–673. https://doi.org/10.1080/00222931108693076
- Cockerell TDA (1912) Names applied to bees of the genus *Osmia*, found in North America. Proceedings of the United States National Museum 42: 215–225. https://doi.org/10.5479/si.00963801.42-1897.215

- Cockerell TDA (1913) Descriptions and records of bees XLVIII. Annals and Magazine of Natural History 11: 54–65. https://doi.org/10.1080/00222931308693292
- Cockerell TDA (1937) Bees collected in Arizona and California in the spring of 1937. American Museum Novitates 948: 1–15.
- Colla S, Ascher JS, Arduser M, Cane J, Deyrup M, Droege S, Gibbs J, Griswold T, Hall HG, Henne C, Neff J, Jean RP, Rightmyer MG, Sheffield C, Viet M, Wolf A (2012) Documenting persistence of most Eastern North American bee species (Hymenoptera: Apoidea: Anthophila) to 1990–2009. Journal of the Kansas Entomological Society 85(1): 14–22. https://doi.org/10.2317/JKES110726.1
- Combs JK (2019) Pollinator habitat framework for coastal meadow conservation. A report prepared for the San Juan Islands National Monument, Cattle Point, San Juan Island, WA
- Crawford JC (1926) North American bees of the genus *Panurginus*. Proceedings of the Entomological Society of Washington 28(9): 207–214.
- Daly HV (1973) Bees of the genus *Ceratina* in America north of Mexico (Hymenoptera: Apoidea). University of California Publications in Entomology 74: 1–113.
- Danforth BN, Minckley RL, Neff JL (2019) The Solitary Bees: biology, evolution, conservation. Princeton University Press, 1–472. https://doi.org/10.1515/9780691189321
- Daubenmire R (1970) Steppe vegetation of Washington. Technical Bulletin. Washington Agricultural Experiment Station 62: 1–131.
- Decker BL, Bryan C, Kassim L, Soley N, Sipes SD, Arduser M, Harmon-Threatt AN (2020) Preliminary Illinois bee species checklist (Hymenoptera: Apoidea) and use of museum collections. Journal of the Kansas Entomological Society 93(1): 34–74. https://doi.org/10.2317/0022-8567-93.1.34
- Dibble AC, Drummond FA, Stubbs C, Veit M, Ascher JS (2017) Bees of Maine, with a state species checklist. Northeastern Naturalist 24(15): 1–48. https://doi.org/10.1656/045.024. m1503
- Donovan BJ (1977) A revision of North American bees of the subgenus *Cnemidandrena*. University of California Publications in Entomology 81: 1–107.
- Droege S, Rightmyer MG, Sheffield CS, Brady SG (2010) New synomomies in the bee genus *Nomada* from North America (Hymenoptera: Apidae). Zootaxa 2661: 1–32. https://doi.org/10.11646/zootaxa.2661.1.1
- Drummond FA, Stubbs CS (1997) Potential for management of the blueberry bee, Osmia atriventris Cresson. Acta Horticulturae 446: 77–86. https://doi.org/10.17660/ActaHortic.1997.446.10
- Fabian MJ (2014) The effects of agricultural practices on native bee community structure and highbush blueberry crop production. PHD Thesis. Western Washington University (Bellingham).
- Franklin JF, Dyrness CT (1973) Natural Vegetation of Oregon and Washington. USDA Forest Service General Technical Report PNW-8, 1–417.
- Freitas FV, Branstetter MG, Franceschini-Santos VH, Dorchin A, Wright KW, Lopez-Uribe MM, Griswold T, Silveira FA, Almeida EAB (2023) UCE phylogenomics, biogeography, and classification of long-horned bees (Hymenoptera: Apidae: Eucerini), with insights on using specimens with extremely degraded DNA. Insect Systematics and Diversity 7(4): 1–21. https://doi.org/10.1093/isd/ixad012

- Gardner J, Gibbs J (2020) The 'red-tailed' *Lasioglossum* (*Dialictus*) (Hymenoptera: Halictidae) of the western Nearctic. European Journal of Taxonomy 725: 1–242. https://doi.org/10.5852/ejt.2020.725.1167
- Gardner J, Gibbs J (2022) New and little-known Canadian *Lasioglossum* (*Dialictus*) (Hymenoptera: Halictidae) and an emended key to species. The Canadian Entomologist 154: 1–37. https://doi.org/10.4039/tce.2021.47
- Gardner J, Gibbs J (2023) Revision of the Nearctic species of the *Lasioglossum* (*Dialictus*) *gemmatum* species complex (Hymenoptera: Halictidae). European Journal of Taxonomy 858: 1–222.
- GBIF.org [06 October] (2022a) GBIF Occurrence Download. https://doi.org/10.15468/dl.wgwmmz
- GBIF.org [06 October] (2022b) GBIF Occurrence Download. https://doi.org/10.15468/dl.2j4s3e
- Ghisbain G, Lozier JD, Rahman SR, Ezray BD, Tian L, Ulmer JM, Heraghty SD, Strange JP, Rasmont P, Hines HM (2020) Substantial genetic divergence and lack of recent gene flow support cryptic speciation in a colour polymorphic bumble bee (*Bombus bifarius*) species complex. Systematic Entomology 45(3): 635–652. https://doi.org/10.1111/syen.12419
- Gibbs J (2010) Revision of the metallic species of *Lasioglossum* (*Dialictus*) in Canada (Hymenoptera, Halictidae, Halictini). Zootaxa 2591: 1–382. https://doi.org/10.11646/zootaxa.2591.1.1
- Gibbs J (2011) Revision of the metallic *Lasioglossum* (*Dialictus*) of eastern North America (Hymenoptera: Halictidae: Halictini). Zootaxa 3073: 1–216. https://doi.org/10.11646/zootaxa.3073.1.1
- Gibbs J, Ascher JS, Rightmyer MG, Isaacs R (2017) The bees of Michigan (Hymenoptera: Apoidea: Anthophila), with notes on distribution, taxonomy, pollination, and natural history. Zootaxa 4352(1): 1–160. https://doi.org/10.11646/zootaxa.4352.1.1
- Gibbs J, Packer L, Dumesh S, Danforth BN (2013) Revision and reclassification of *Lasioglossum* (*Evylaeus*), *L.* (*Hemihalictus*) and *L.* (*Sphecodogastra*) in eastern North America (Hymenoptera: Apoidea: Halictidae). Zootaxa 3672(1): 1–117. https://doi.org/10.11646/zootaxa.3672.1.1
- Gonzalez VH, Griswold TL (2013) Wool carder bees of the genus *Anthidium* in the western hemisphere (Hymenoptera: Megachilidae): diversity, host plant associations, phylogeny, and biogeography. Zoological Journal of the Linnean Society 168(2): 221–425. https://doi.org/10.1111/zoj.12017
- Grigarick AA, Stange LA (1968) The pollen-collecting bees of the Anthidiini of California (Hymenoptera: Megachilidae). Bulletin of the California Insect Survey 9: 1–113.
- Griswold T (1983) Revision of *Proteriades* subgenus *Acrosmia* Michener (Hymenoptera: Megachilidae). Annals of the Entomological Society of America 76(4): 707–714. https://doi.org/10.1093/aesa/76.4.707
- Hanson T, Sánchez-de León Y, Johnson-Maynard J, Brunsfeld S (2008) Influence of soil and site characteristics on Palouse Prairie plant communities. Western North American Naturalist 68: 231–240. https://doi.org/10.3398/1527-0904(2008)68[231:IOSASC]2.0.CO;2

- Hanson T, Ascher JS (2018) An unusually large nesting aggregations of the digger bee *Anthophora bomboides* Kirby, 1838 (Hymenoptera: Apidae) in the San Juan Islands, Washington State. The Pan-Pacific Entomologist 94(1): 4–16. https://doi.org/10.3956/2018-94.1.4
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014a) *Bombus morrisoni*. The IUCN Red List of Threatened Species 2014: e.T44937666A69004519. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937666A69004519.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014b) *Bombus insularis*. The IUCN Red List of Threatened Species 2014: e.T44937688A68984117. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937688A68984117.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014c) *Bombus caliginosus*. The IUCN Red List of Threatened Species 2014: e.T44937726A69000748. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937726A69000748.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014d) *Bombus centralis*. The IUCN Red List of Threatened Species 2014: e.T44937777A69001290. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937777A69001290.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014e) *Bombus frigidus*. The IUCN Red List of Threatened Species 2014: e.T44937790A69002715. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937790A69002715.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014f) *Bombus impatiens*. The IUCN Red List of Threatened Species 2014: e.T44937797A69003246. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937797A69003246.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014g) *Bombus melanopygus*. The IUCN Red List of Threatened Species 2014: e.T44937809A68983638. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937809A68983638.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014h) *Bombus mixtus*. The IUCN Red List of Threatened Species 2014: e.T44937898A69004061. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937898A69004061.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2014i) *Bombus ternarius*. The IUCN Red List of Threatened Species 2014: e.T44937988A69005644. https://doi.org/10.2305/IUCN.UK.2014-3.RLTS.T44937988A69005644.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015a) *Bombus nevadensis*. The IUCN Red List of Threatened Species 2015: e.T21215146A21215273. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T21215146A21215273.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S, Foltz Jordan S (2015b) *Bombus occidentalis*. The IUCN Red List of Threatened Species 2015: e.T44937492A46440201. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937492A46440201.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015c) *Bombus terricola*. The IUCN Red List of Threatened Species 2015: e.T44937505A46440206. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937505A46440206.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015d) *Bombus griseocollis*. The IUCN Red List of Threatened Species 2015: e.T44937645A46440221. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937645A46440221.en

- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015e) *Bombus rufocinctus*. The IUCN Red List of Threatened Species 2015: e.T21215145A21215305. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T21215145A21215305.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015f) *Bombus suckleyi*. The IUCN Red List of Threatened Species 2015: e.T44937699A46440241. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937699A46440241.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015g) *Bombus flavifrons*. The IUCN Red List of Threatened Species 2015: e.T44937784A46440266. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937784A46440266.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015h) *Bombus huntii*. The IUCN Red List of Threatened Species 2015: e.T21215139A21215245. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T21215139A21215245.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015i) *Bombus sitkensis*. The IUCN Red List of Threatened Species 2015: e.T44937938A46440301. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937938A46440301.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015j) *Bombus sylvicola*. The IUCN Red List of Threatened Species 2015: e.T44937945A46440306. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937945A46440306.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015k) *Bombus vagans*. The IUCN Red List of Threatened Species 2015: e.T44938024A46440316. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44938024A46440316.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015l) *Bombus vandykei*. The IUCN Red List of Threatened Species 2015: e.T44938052A46440321. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44938052A46440321.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015m) *Bombus vosnesenskii*. The IUCN Red List of Threatened Species 2015: e.T44938235A46440326. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44938235A46440326.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015n) *Bombus appositus*. The IUCN Red List of Threatened Species 2015: e.T44938356A46440331. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44938356A46440331.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2015o) *Bombus borealis*. The IUCN Red List of Threatened Species 2015: e.T44938377A46440336. https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44938377A46440336.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S, Foltz Jordan S (2015p) *Bombus fervidus*. The IUCN Red List of Threatened Species 2015: e.T21215132A21215225. https://doi.org/10.2305/IUCN.UK.2015-4.RLTS.T21215132A21215225.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S, Foltz Jordan S (2015q) *Bombus pensylvanicus*. The IUCN Red List of Threatened Species 2015: e.T21215172A21215281. https://doi.org/10.2305/IUCN.UK.2015-4.RLTS.T21215172A21215281.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S, Foltz Jordan S (2016a) *Bombus kirbiellus*. The IUCN Red List of Threatened Species 2016: e.T88088737A88291693. https://doi.org/10.2305/IUCN.UK.2016-1.RLTS.T88088737A88291693.en

- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S, Foltz Jordan S (2016b) *Bombus polaris*. The IUCN Red List of Threatened Species 2016: e.T88120725A46440181. https://doi.org/10.2305/IUCN.UK.2016-1.RLTS.T88120725A46440181.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2016c) *Bombus bohemicus*. The IUCN Red List of Threatened Species 2016: e.T13152926A46440141. https://doi.org/10.2305/IUCN.UK.2016-1.RLTS.T13152926A46440141.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S (2016d) *Bombus flavidus*. The IUCN Red List of Threatened Species 2016: e.T13340361A46440156. https://doi.org/10.2305/IUCN.UK.2016-1.RLTS.T13340361A46440156.en
- Hatfield R, Jepsen S, Thorp R, Richardson L, Colla S, Foltz Jordan S (2016e) *Bombus variabilis*. The IUCN Red List of Threatened Species 2016: e.T21215168A21215249. https://doi.org/10.2305/IUCN.UK.2016-1.RLTS.T21215168A21215249.en
- Hurd Jr PD, Michener CD (1955) The Megachiline bees of California (Hymenoptera: Megachilidae). Bulletin of the California Insect Survey 3: 1–248.
- Hurd PD (1979) Superfamily Apoidea. In: Krombein KV, Hurd PD, Smith DR, and Burks BD (Eds) Catalog of Hymenoptera in America North of Mexico. Volume 2. Smithsonian Institution Press. Washington, D. C., 2209 pp.
- IUCN (2001) IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK, 1–30.
- Jean RP (2010) Studies of bee diversity in Indiana: the influence of collection methods on species captures, and a state checklist based on museum collection. PHD Thesis. Indiana State University (Terre Haute).
- Kapheim KM, Johnson MM, Jolley M (2021) Composition and acquisition of the microbiome in solitary, ground-nesting alkali bee. Scientific Reports 11: 2993. https://doi.org/10.1038/s41598-021-82573-x
- Kilpatrick SK, Gibbs J, Mikulas MM, Spichiger SE, Ostiguy N, Biddinger DJ, Lopez-Uribe MM (2020) An updated checklist of the bees (Hymenoptera, Apoidea, Anthophila) of Pennsylvania, Unites States of America. Journal of Hymenoptera Research 77: 1–86. https://doi.org/10.3897/jhr.77.49622
- Koch JB, Looney C, Sheppard WS, Strange JP (2016) Range extension of two bumble bee species (Hymenoptera: Apidae) into Olympic National Park. Northwest Science 90(2): 228–234. https://doi.org/10.3955/046.090.0212
- Koch JB, Looney C, Sheppard WS, Strange JP (2017) Patterns of population genetic structure and diversity across bumble bee communities in the Pacific Northwest. Conservation Genetics 18: 507–520. https://doi.org/10.1007/s10592-017-0944-8
- Koch JB, Rodriguez J, Pitts JP, Strange JP (2018) Phylogeny and population genetic analyses reveals cryptic speciation in the *Bombus fervidus* species complex (Hymenoptera: Apidae). PLoS ONE 13(11): e0207080. https://doi.org/10.1371/journal.pone.0207080
- LaBerge WE (1956a) A revision of the bees of the genus *Melissodes* in North and Central America. Part I. (Hymenoptera, Apidae). The University of Kansas Science Bulletin 37(18): 911–1194. https://doi.org/10.5962/bhl.part.24549

- LaBerge WE (1956b) A revision of the bees of the genus *Melissodes* in North and Central America. Part II (Hymenoptera, Apidae). The University of Kansas Science Bulletin 38(8): 533–578. https://doi.org/10.5962/p.376392
- LaBerge WE (1961) A revision of the bees of the genus *Melissodes* in North and Central America. Part III (Hymenoptera, Apidae). The University of Kansas Science Bulletin 42(5): 283–663. https://doi.org/10.5962/bhl.part.9821
- LaBerge WE (1969) A revision of the bee genus *Andrena* of the Western Hemisphere. Part II. *Plastandrena*, *Aporandrena*, *Charitandrena*. Transactions of the American Entomological Society 95(1): 1–47.
- LaBerge WE (1973) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part VI. Subgenus *Trachandrena*. Transactions of the American Entomological Society 99(3): 235–371.
- LaBerge WE (1977) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part VIII. Subgenera *Thysandrena*, *Dasyandrena*, *Psammandrena*, *Euandrena*, *Oxyandrena*. Transactions of the American Entomological Society 103(1): 1–143.
- LaBerge WE (1980) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part X. Subgenus *Andrena*. Transactions of the American Entomological Society 106(4): 195–525.
- LaBerge WE (1985) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part XI. Minor subgenera and subgeneric key. Transactions of the American Entomological Society 111(4): 441–567.
- LaBerge WE (1986a) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part XII. Subgenera *Leucandrena*, *Ptilandrena*, *Scoliandrena* and *Melandrena*. Transactions of the American Entomological Society 112(3): 191–248.
- LaBerge WE (1986b) The zoogeography of *Andrena* Fabricius (Hymenoptera: Andrenidae) of the Western Hemisphere. In Clambey GK, Pemble RH (Eds) The prairie: past, present, and future: proceedings of the Ninth North American Prairie Conference (Minnesota) July-August 1984. Tri-College University Center for Environmental Studies (Fargo).
- LaBerge WE (1989) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part XIII. Subgenera *Simandrena* and *Taeniandrena*. Transactions of the American Entomological Society 115(1): 1–56.
- LaBerge WE, Bouseman JK (1970) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part III. *Tylandrena*. Transactions of the American Entomological Society 96(4): 543–605.
- LaBerge WE, Ribble DW (1972) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part V. *Gonandrena*, *Geissandrena*, *Parandrena*, *Pelicandrena*. Transactions of the American Entomological Society 98(3): 271–358.
- LaBerge WE, Ribble DW (1975) A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part VII. Subgenus *Euandrena*. Transactions of the American Entomological Society 101(3): 371–466.
- Lane IG, Portman ZM, Herron-Sweet CH, Pardee GL, Cariveau DP (2022) Differences in bee community composition between restored and remnant prairies are more strongly linked to forb community differences than landscapes differences. Journal of Applied Ecology 59: 129–140. https://doi.org/10.1111/1365-2664.14035

- Larkin LL, Neff JL, Simpson BB (2006) Phylogeny of the *Callandrena* subgenus of *Andrena* (Hymenoptera: Andrenidae) based on mitochondrial and nuclear DNA data: polyphyly and convergent evolution. Molecular Phylogenetics and Evolution 38: 330–343. https://doi.org/10.1016/j.ympev.2005.10.003
- Larkin LL, Neff JL, Simpson BB (2008) The evolution of a pollen diet: host choice and diet breadth of *Andrena* bees (Hymenoptera: Andrenidae). Apidologie 39: 133–145. https://doi.org/10.1051/apido:2007064
- Lewis SE (1994) Evidence of leaf-cutting bee damage from the Republic sites (Middle Eocene) of Washington. Journal of Paleontology 68(1): 172–173. https://doi.org/10.1017/S0022336000025713
- Lhomme P, Williams SD, Ghisbain G, Martinet B, Gerard M, Hines HM (2021) Diversification pattern of the widespread holarctic cuckoo bumble bee, *Bombus flavidus* (Hymenoptera: Apidae): the east side story. Insect Systematics and Diversity 5(2): 1–15. https://doi.org/10.1093/isd/ixab007
- Linsley EG (1939) A revision of the Nearctic Melectinae (Hymenoptera, Anthophoridae). Annals of the Entomological Society of America 32(2): 429–468. https://doi.org/10.1093/aesa/32.2.429
- Looney C, Eigenbrode SD (2012) Characteristics and distribution of Palouse Prairie remnants: implications for conservation planning. Natural Areas Journal 32(1): 75–85. https://doi.org/10.3375/043.032.0109
- Looney C, Strange JP, Freeman M, Jennings D (2019) The expanding Pacific Northwest range of *Bombus impatiens* Cresson and its establishment in Washington State. Biological Invasions 21: 1879–1885. https://doi.org/10.1007/s10530-019-01970-6
- MacPhail VJ, Gibson SD, Hatfield R, Colla SR (2020) Using Bumble Bee Watch to investigate the accuracy and perception of bumble bee (*Bombus* spp.) identification by community scientists. PeerJ 8: e9412. https://doi.org/10.7717/peerj.9412
- Martinet B, Lecocq T, Brasero N, Gerard M, Urbanova K, Valterova I, Gjershaug JO, Michez D, Rasmont P (2019) Integrative taxonomy of an arctic bumblebee species complex highlights a new cryptic species (Apidae: *Bombus*). Zoological Journal of the Linnean Society 187: 599–621. https://doi.org/10.1093/zoolinnean/zlz041
- Mathiasson ME, Rehan SM (2019) Status changes in the wild bees of north-eastern North America over 125 years revealed through museum specimens. Insect Conservation and Diversity 12: 278–288. https://doi.org/10.1111/icad.12347
- Mayer DF, Miliczky ER, Finnigan BF, Johansen CA (2000) The bee fauna (Hymenoptera: Apoidea) of southeastern Washington. Journal of the Entomological Society of British Columbia 97: 25–31.
- McGinley RJ (1986) Studies of Halictinae (Apoidea: Halictidae), I: Revision of New World Lasioglossum Curtis. Smithsonian Contributions to Zoology 429: 1–294. https://doi.org/10.5479/si.00810282.429
- McGinley RJ (2003) Studies of Halictinae (Apoidea: Halictidae), II: Revision of *Sphecodogastra* Ashmead, floral specialists of Onagraceae. Smithsonian Contributions to Zoology 610: 1–55. https://doi.org/10.5479/si.00810282.610
- Michener CD (1935) Some Pacific coast *Panurginus* (Hymen., Apoidea). The Canadian Entomologist 67(12): 275–278. https://doi.org/10.4039/Ent67275-12

- Michener CD (1936a) Some North American Osmiinae (Hymenoptera, Apoidea). American Museum Novitates 875: 1–30.
- Michener CD (1936b) Western bees of the genus *Ceratina*, subgenus *Zadontomerus*. American Museum Novitates 844: 1–13.
- Michener CD (1938a) American bees of the genus *Heriades*. Annals of the Entomological Society of America 31(4): 514–531. https://doi.org/10.1093/aesa/31.4.514
- Michener CD (1938b) American bees of the genus *Chelostoma*. Pan-Pacific Entomologist 14(1): 36–45.
- Michener CD (1938c) A review of the American bees of the genus *Macropis* (Hymen., Apoidea). Psyche 45(2–3): 133–135. https://doi.org/10.1155/1938/49645
- Michener CD (1939) A revision of the genus *Ashmeadiella* (Hymen., Megachilidae). American Midland Naturalist 22(1): 1–84. https://doi.org/10.2307/2420397
- Michener CD (1947) A revision of the American species of *Hoplitis* (Hymenoptera, Megachilidae). Bulletin of the American Museum of Natural History 89(4): 257–318.
- Michener CD (1979) Biogeography of the bees. Annal of the Missouri Botanical Garden 66(3): 277–347. https://doi.org/10.2307/2398833
- Michener CD (2007) The Bees of the World. The John Hopkins University Press (Baltimore), 1–953. https://doi.org/10.56021/9780801885730
- Michez D, Patiny S (2005) World revision of the oil-collecting bee genus *Macropis* Panzer 1809 (Hymenoptera: Apoidea: Melittidae) with a description of a new species from Laos. Annales de la Société entomologique de France 41(1): 15–28. https://doi.org/10.1080/00379271.2005.10697439
- Miliczky E (2000) Nesting biology of the bee *Melissodes* (*Eumelissodes*) microsticta Cockerell in Washington State (Hymenoptera: Apidae). Pan-Pacific Entomologist 76(3): 184–196.
- Miliczky E (2008) Observations on the nesting biology of *Andrena (Plastandrena) prunorum* Cockerell in Washington State (Hymenoptera: Andrenidae). Journal of the Kansas Entomological Society 81(2): 110–121. https://doi.org/10.2317/JKES-611.12.1
- Milliron HE (1973) A monograph of the western hemisphere bumblebees (Hymenoptera: Apidae: Bombinae) II. The genus *Megabombus* subgenus *Megabombus*. Memoirs of the Entomological Society of Canada 89: 81–237. https://doi.org/10.4039/entm10589fv
- Mitchell TB (1927) New Megachilid bees. Psyche 34(2): 104–121. https://doi.org/10.1155/1927/86083
- Mitchell TB (1933) A revision of the genus *Megachile* in the Nearctic region. Part I. Classification and descriptions of new species (Hymenoptera: Megachilidae). Transactions of the American Entomological Society 59: 295–361.
- Mitchell TB (1935a) A revision of the genus *Megachile* in the Nearctic region. Part III. Taxonomy of subgenera *Anthemois* and *Delomegachile*. Transactions of the American Entomological Society 61(3): 155–205.
- Mitchell TB (1935b) A revision of the genus *Megachile* in the Nearctic region. Part II. Morphology of the male sternites and genital armature and the taxonomy of the subgenera *Litomegachile*, *Neomegachile*, *Neomegachile* and *Cressoniella*. Transactions of the American Entomological Society 61(1): 1–44.

- Mitchell TB (1936a) A revision of the genus *Megachile* in the Nearctic region. Part IV. Taxonomy of the subgenera *Xanthosarus*, *Phaenosarus*, *Megachiloides* and *Derotropis* (Hymenoptera: Megachilidae). Transactions of the American Entomological Society 62(2): 117–166.
- Mitchell TB (1936b) A revision of the genus *Megachile* in the Nearctic region. Part V. Taxonomy of the subgenus *Xeromegachile* (Hymenoptera: Megachilidae). Transactions of the American Entomological Society 62(4): 323–382.
- Mitchell TB (1937a) A revision of the genus *Megachile* in the Nearctic region. Part VI. Taxonomy of subgenera *Argyropile*, *Leptorachis*, *Pseudocentron*, *Acentron* and *Melanosarus*. Transactions of the American Entomological Society 63(1): 45–83.
- Mitchell TB (1937b) A revision of the genus *Megachile* in the Nearctic region. Part VIII. Taxonomy of the subgenus *Chelostomoides*, addenda and index. Transactions of the American Entomological Society 63(4): 381–421.
- Mitchell TB (1937c) A revision of the genus *Megachile* in the Nearctic region. Part VII. Taxonomy of the subgenus *Sayapis*. Transactions of the American Entomological Society 63(2): 175–206.
- Mitchell TB (1938) Notes on the Megachilid subgenera *Xeromegachile* and *Deroptropis*. The Pan-Pacific Entomologist 14(4): 168–177.
- Mitchell TB (1942) Notes and descriptions of Nearctic *Megachile* (Hymenoptera, Megachilidae). The Pan-Pacific Entomologist 18(3): 115–118.
- Mitchell TB (1944) New species and records in *Megachile* (Hymenoptera, Megachilidae). The Pan-Pacific Entomologist 20(4): 132–143.
- Mitchell TB (1962) Bees of the eastern United States. Vol. II. North Carolina, Agricultural Experiment Station Technical Bulletin 152, 557 pp.
- Muesebeck CFW, Krombein KV, Townes HK (1951) Hymenoptera of America north of Mexico: synoptic catalog. No. 2. US Department of Agriculture. https://doi.org/10.5962/bhl.title.65057
- National Research Council (2007) Status of Pollinators in North America. The National Academies Press (Washington, DC), 1–307.
- NatureServe (2024) NatureServe Network Biodiversity Location Data accessed through NatureServe Explorer. NatureServe (Arlington). https://explorer.natureserve.org/ [Accessed 6 March 2024]
- Ogilvie JE, Forrest JRK (2017) Interactions between bee foraging and floral resource phenology shape bee populations and communities. Current Opinion in Insect Science 21: 75–82. https://doi.org/10.1016/j.cois.2017.05.015
- Onuferko TM (2017) Cleptoparasitic bees of the genus *Epeolus* Latreille (Hymenoptera: Apidae) in Canada. Canadian Journal of Arthropod Identification 30: 1–62.
- Onuferko TM (2018) A revision of the cleptoparasitic bee genus *Epeolus* Latreille for Nearctic species, north of Mexico (Hymenoptera, Apidae). ZooKeys 755: 1–185. https://doi.org/10.3897/zookeys.755.23939
- Onuferko TM, Sheffield CS (2022) A new species of *Epeolus* Latreille, 1802 (Hymenoptera: Apidae) from western North America. Insecta Mundi 0940: 1–12.

- Onuferko TM, Packer L, Genaro JA (2021) *Brachymelecta* Linsley, 1939, previously the rarest North American bee genus, was described from an aberrant specimen and is the senior synonym for *Xeromelecta* Linsley, 1939. European Journal of Taxonomy 754: 1–51. https://doi.org/10.5852/ejt.2021.754.1393
- Orr MC, Pitts JP, Griswold T (2018) Revision of the bee group *Anthophora* (*Micranthophora*) (Hymenoptera: Apidae), with notes on potential conservation concerns and a molecular phylogeny of the genus. ZooTaxa 4511(1): 1–193. https://doi.org/10.11646/zootaxa.4511.1.1
- Orr MC, Hughes AC, Chesters D, Pickering J, Zhu CD, Ascher JS (2021) Global patterns and drivers of bee distribution. Current Biology 31: 451–458. https://doi.org/10.1016/j.cub.2020.10.053
- Orr MC, Jakob M, Harmon-Threatt A, Mupepele A-C (2022) A review of global trends in the study types used to investigate bee nesting biology. Basic and Applied Ecology 62: 12–21. https://doi.org/10.1016/j.baae.2022.03.012
- Owen RE, Whidden TL (2013) Discrimination of the bumble bee species *Bombus occidentalis* Greene and *B. terricola* Kirby by morphometric, colour and RAPD variation. Zootaxa 3608: 328–344. https://doi.org/10.11646/zootaxa.3608.5.2
- Owens BE, Allain L, Van Gorder EC, Bossart JL, Carlton CE (2018) The bees (Hymenoptera: Apoidea) of Louisiana: an updated, annotated checklist. Proceedings of the Entomological Society of Washington 120(2): 272–307. https://doi.org/10.4289/0013-8797.120.2.272
- Packer, L (2023) Bees of the world: a guide to every family. The Princeton University Press (Princeton), 1–240. https://doi.org/10.2307/j.ctv2v6pd2p
- Pisanty G, Richter R, Martin T, Dettman J, Cardinal S (2022) Molecular phylogeny, historical biogeography and revised classification of andrenine bees (Hymenoptera: Andrenidae). Molecular Phylogenetics and Evolution 170: 1–16. https://doi.org/10.1016/j.ympev.2021.107151
- Portman ZM, Gardner J, Lane IG, Gerjets N, Petersen JD, Ascher JS, Arduser M, Evans EC, Boyd C, Thomson R, Cariveau DP (2023) A checklist of the bees (Hymenoptera: Apoidea) of Minnesota. ZooTaxa 5304(1): 1–95. https://doi.org/10.11646/zootaxa.5304.1.1
- R Core Team (2023) R: A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/
- Ratnasingham S, Hebert PDN (2007) BOLD: The Barcode of Life Data System (www. barcodinglife.org). Molecular Ecology Notes. https://doi.org/10.1111/j.1471-8286.2007.01678.x
- Raw A (2002) New combinations and synonymies of leafcutter and mason bees of the Americas (*Megachile*, Hymenoptera, Megachilidae). ZooTaxa 71: 1–43. https://doi.org/10.11646/zootaxa.71.1.1
- Rhoades P, Griswold T, Ikerd H, Waits L, Bosque-Perez NA, Eigenbrode SD (2017) The native bee fauna of the Palouse Prairie (Hymenoptera: Apoidea). Journal of Melittology 66: 1–20. https://doi.org/10.17161/jom.v0i66.5703
- Rhoades PR, Davis TS, Tinkham WT, Hoffman CM (2018) Effects of seasonality, forest structure, and understory plant richness on bee community assemblage in a southern Rocky Mountain mixed conifer forest. Annals of the Entomological Society of America 111(5): 278–284. https://doi.org/10.1093/aesa/say021

- Ribble DW (1968) Revisions of two subgenera of *Andrena*: *Micrandrena* Ashmead and *Derandrena* new subgenus (Hymenoptera: Apoidea). Bulletin of the University of Nebraska State Museum 8(5): 237–394.
- Ribble DW (1974) A revision of the bees of the genus *Andrena* of the western hemisphere subgenus *Scaphandrena*. Transactions of the American Entomological Society 100(2): 101–189.
- Rightmyer MG (2008) A review of the cleptoparasitic bee genus *Triepeolus* (Hymenoptera: Apidae). Part I. ZooTaxa 1710: 1–170. https://doi.org/10.11646/zootaxa.1710.1.1
- Rightmyer MG, Griswold T, Arduser MS (2010) A review of the non-metallic *Osmia* (Melanosmia) found in North America, with additional notes on palearctic *Melanosmia* (Hymenoptera, Megachilidae). ZooKeys 60: 37–77. https://doi.org/10.3897/zookeys.60.484
- Roberts RR (1973) Bees of northwestern America: *Agapostemon*. Oregon State University Agricultural Experiment Station Technical Bulletin 125: 1–23.
- Robinson L, Newell JP, Marzluff JM (2005) Twenty-five years of sprawl in the Seattle region: growth management responses and implications for conservation. Landscape and Urban Planning 71: 51–72. https://doi.org/10.1016/j.landurbplan.2004.02.005
- Rodeck HG (1947) *Laminomada*, new subgenus of *Nomada* (Hym.: Apoidea). Annal of the Entomological Society of America 40(2): 266–270. https://doi.org/10.1093/aesa/40.2.266
- Rodeck HG (1949) North American bees of the genus *Nomada*, subgenus *Callinomada* (Hymenoptera: Apoidea). Annals of the Entomological Society of America 42: 174–186. https://doi.org/10.1093/aesa/42.2.174
- Rowe G (2017) A taxonomic revision of the Canadian non-*Osmia* Osmiini (Hymenoptera: Megachilidae). MS Thesis. York University (Toronto).
- Rozen Jr JG (1958) Monographic study of the genus *Nomadopsis* Ashmead (Hymenoptera: Andrenidae) University of California Publications in Entomology 15: 1–202.
- Rozen Jr JG (1992) Systematics and host relationships of the cuckoo bee genus *Oreopasites* (Hymenoptera: Anthophoridae: Nomadinae). American Museum Novitates 2046: 1–56.
- Sandhouse GA (1939) The North American bees of the genus *Osmia* (Hymenoptera: Apoidea). Memoirs of the Entomological Society of Washington 1: 1–167.
- Scott VL, Ascher JS, Griswold T, Nufio CR (2011) The bees of Colorado (Hymenoptera: Apoidea: Anthophila). Natural History Inventory of Colorado 23: 1–100.
- Shapiro LH, Tepedino VJ, Minckley RL (2014) Bowling for bees: optimal sample number for "bee bowl" sampling transects. Journal of Insect Conservation 18(6): 9. https://doi.org/10.1007/s10841-014-9720-y
- Sheffield CS (2020) *Andrena* (*Melandrena*) *cyanura* Cockerell (Hymenoptera: Apoidea, Andrenidae), a valid North American species. Journal of the Entomological Society of British Columbia 117: 49–59.
- Sheffield CS, Heron JM (2018) The bees of British Columbia (Hymenoptera: Apoidea, Apiformes). Journal of the Entomological Society of British Columbia 115: 44–85.
- Sheffield CS, Kevan PG, Pindar A, Packer L (2013a) Bee (Hymenoptera: Apoidea) diversity within apple orchards and old fields in the Annapolis Valley, Nova Scotia, Canada. Canadian Entomologist 145: 94–114. https://doi.org/10.4039/tce.2012.89
- Sheffield CS, Pindar A, Packer L, Kevan PG (2013b) The potential of cleptoparasitic bees as indicator taxa for assessing bee communities. Apidologie 44: 501–510. https://doi.org/10.1007/s13592-013-0200-2

- Shepherd MD (2005a) Species profile: *Andrena aculeata*. In: Shepherd MD, Vaughan DM, Black SH (Eds) Red list of pollinator insects of North America. CD-ROM Version 1 (May 2005). The Xerces Society for Invertebrate Conservation (Portland).
- Shepherd MD (2005b) Species profile: *Eucera douglasiana*. In: Shepherd MD, Vaughan DM, Black SH (Eds) Red list of pollinator insects of North America. CD-ROM Version 1 (May 2005). The Xerces Society for Invertebrate Conservation (Portland).
- Shepherd MD (2005c) Species profile: *Eucera frater lata*. In: Shepherd MD, Vaughan DM, Black SH (Eds) Red list of pollinator insects of North America. CD-ROM Version 1 (May 2005). The Xerces Society for Invertebrate Conservation (Portland).
- Shepherd MD (2005d) Species profile: *Hoplitis producta subgracilis*. In: Shepherd MD, Vaughan DM, Black SH (Eds) Red list of pollinator insects of North America. CD-ROM Version 1 (May 2005). The Xerces Society for Invertebrate Conservation (Portland).
- Shepherd MD (2005e) Species profile: *Hoplitis orthognathus*. In: Shepherd MD, Vaughan DM, Black SH (Eds) Red list of pollinator insects of North America. CD-ROM Version 1 (May 2005). The Xerces Society for Invertebrate Conservation (Portland).
- Simpson BB, Neff JL (1987) Pollination ecology in the arid southwest. Aliso: A Journal of Systematic and Floristic Botany 11(4): 417–440. https://doi.org/10.5642/aliso.19871104.02
- Sinha RN, Michener CD (1958) A revision of the genus *Osmia*, subgenus *Centrosmia* (Hymenoptera: Megachilidae). The University of Kansas Science Bulletin 39(7): 275–303.
- Snelling RR (1966) Studies on North American bees of the genus *Hylaeus* 1. Distribution of the western species of the subgenus *Prosopis* with descriptions of new forms (Hymenoptera: Colletidae). Los Angeles County Museum Contributions in Science 98: 1–18. https://doi.org/10.5962/p.241088
- Snelling RR (1970) Studies of North American bees of the genus *Hylaeus*. 5. The subgenera *Hylaeus*, s. str. and *Paraprosopis* (Hymenoptera: Colletidae). Contributions in Science 180: 1–59. https://doi.org/10.5962/p.241167
- Snelling RR (1994) *Diadasia*, subgenus *Dasiapis*, in North America (Hymenoptera: Anthophoridae). Contributions in Science 448: 1–8. https://doi.org/10.5962/p.226806
- Stephen WP (1952) A revision of the genus *Colletes* in America north of Mexico (Hymenoptera, Colletidae). PHD Thesis. University of Manitoba (Winnipeg).
- Stephen WP (1954) A revision of the bee genus *Colletes* in America north of Mexico (Hymenoptera, Colletidae). The University of Kansas Science Bulletin 36(6): 149–527.
- Strange JP, Tripodi AD (2019) Characterizing bumble bee (*Bombus*) communities in the United States and assessing a conservation monitoring method. Ecology and Evolution 9: 1061–1069. https://doi.org/10.1002/ece3.4783
- Swenk MH (1908) Specific characters in the bee genus *Colletes*. The University of Nebraska Contributions from the Department of Entomology 1: 43–102.
- Swenk MH (1914) I. Studies of North American bees II. Family Stelididae. University Studies 14(1): 1–36.
- Taylor NJ (2008) Reproductive biology of *Hackelia venusa* (Piper) St. John (Boraginaceae). MS Thesis. University of Washington (Seattle).
- Tepedino VJ, Griswold TL (1995) The bees of the Columbia Basin. Final Report, USDA Forest Service (Portland), 1–212.

- Thomspon JN, Pellmyr O (1992) Mutualism with pollinating seed parasites amid co-pollinators: constraints on specialization. Ecology 73(5): 1780–1791. https://doi.org/10.2307/1940029
- Thorp RW (1969) Systematics and ecology of bees of the subgenus *Diandrena* (Hymenoptera: Andrenidae). University of California Publications in Entomology, 1–146.
- Thorp RW, LaBerge WE (2005) A revision of the bees of the genus *Andrena* of the western hemisphere. Part XIV Subgenus *Onagrandrena* and Part XV Subgenus *Hesperandrena*. Illinois Natural History Survey Bulletin 37(1): 1–64 and 37(2): 65–94. https://doi.org/10.21900/j.inhs.v37.120
- Thorp RW, Horning Jr DS, Dunning LL (1983) Bumble bees and cuckoo bumble bees of California. Bulletin of the California Insect Survey 23: 1–79.
- Timberlake PH (1943) Bees of the genus *Colletes* chiefly from Colorado. Bulletin of the American Museum of Natural History 81(5): 385–410.
- Timberlake PH (1951) Western bees of the genus *Colletes* (Hymenoptera: Apoidea). The Wasmann Journal of Biology 9(2): 181–238.
- Timberlake PH (1956) A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific Coast (Hymenoptera, Apoidea) Part II. University of California Publications in Entomology 11(5): 247–350.
- Timberlake PH (1958) A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific Coast Part III. University of California Publications in Entomology 14(5): 303–410.
- Timberlake PH (1964) A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific Coast (Hymenoptera, Apoidea) Part VI. University of California Publications in Entomology 28(2): 125–388.
- Timberlake PH (1968) A revisional study of the bees of the genus *Perdita* F. Smith, with special reference to the fauna of the Pacific Coast. University of California Publications in Entomology 49: 1–196.
- Timberlake PH (1969) A contribution to the systematics of North American species of *Synhalonia* (Hymenoptera, Apoidea). University of California Publications in Entomology 57: 1–76.
- Timberlake PH (1971) Scientific Note On the identity of *Panurginus ineptus* Cockerell (Hymenoptera: Andrenidae). The Pan-Pacific Entomologist 47(2): 148.
- US Environmental Protection Agency (2012) Level III ecoregions of Washington. US EPA Office of Research and Development National Health and Environmental Effects Research Laboratory, Corvallis, OR.
- Veit MF, Ascher JS, Milam J, Morrison FR, Goldstein PZ (2021) A checklist of the bees of Massachusetts (Hymenoptera: Apoidea: Anthophila). Journal of the Kansas Entomological Society 94(2): 81–157. https://doi.org/10.2317/0022-8567-94.2.81
- Viereck HL (1916) New species of North American bees of the genus *Andrena* from west of the 100th meridian contained in the collections of the Academy of Natural Sciences of Philadelphia. Proceedings of the Academy of Natural Sciences of Philadelphia 68(3): 550–608.
- Viereck HL, Cockerell TDA, Titus ESG, Crawford Jr JC, Swenk MH (1904a) Synopsis of bees of Oregon, Washington, British Columbia and Vancouver. The Canadian Entomologist 36(4): 93–100. https://doi.org/10.4039/Ent3693-4

- Viereck HL, Cockerell TDA, Titus ESG, Crawford Jr JC, Swenk MH (1904b) Synopsis of bees of Oregon, Washington, British Columbia and Vancouver. II. The Canadian Entomologist 36: 157–161. https://doi.org/10.4039/Ent36157-6
- Viereck HL, Cockerell TDA, Titus ESG, Crawford Jr JC, Swenk MH (1904c) Synopsis of bees of Oregon, Washington, British Columbia and Vancouver. III. The Canadian Entomologist 36(8): 189–196, 221–232. https://doi.org/10.4039/Ent36221-8
- Viereck HL, Cockerell TDA, Titus ESG, Crawford Jr JC, Swenk MH (1905) Synopsis of bees of Oregon, Washington, British Columbia and Vancouver. IV. The Canadian Entomologist 37(8): 277–287, 313–321. https://doi.org/10.4039/Ent37313-9
- Viereck HL, Cockerell TDA, Titus ESG, Crawford Jr JC, Swenk MH (1906) Synopsis of bees of Oregon, Washington, British Columbia and Vancouver. V. The Canadian Entomologist 38(9): 297–304. https://doi.org/10.4039/Ent38297-9
- Vinchesi AC (2014) Assessing transportation impacts to alkali bees (Hymenoptera: Halictidae) and alfalfa seed production in the Walla Walla Valley. MS Thesis. Washington State University (Pullman).
- Washington Department of Fish and Wildlife (2015) Washington's State Wildlife Action Plan: 2015 Update. Washington Department of Fish and Wildlife, Olympia, WA, USA.
- Waters S (2023) Data for: Prescribed fire increases plant-pollinator network robustness to losses of rare native forbs. Dryad, Dataset. https://doi.org/10.1002/eap.2928
- White JR (1952) A revision of the genus *Osmia*, subgenus *Acanthosioides* (Hymenoptera, Megachilidae). The University of Kansas Science Bulletin 35(2): 219–307.
- Williams PH (1998) An annotated checklist of bumble bees with an analysis of patterns of descriptions (Hymenoptera: Apidae, Bombini). Bulletin of The Natural History Museum (Entomology) 67: 79–152. [Bombus: bumblebees of the world] https://www.nhm.ac.uk/research-curation/research/projects/bombus/
- Williams PH, Brown MJF, Carolan JC, An J, Goulson D, Aytekin AM, Best LR, Byvaltsev AM, Cederberg B, Dawson R, Huang J, Ito M, Monfared A, Raina RH, Schmid-Hempel P, Sheffield CS, Šima P, Xie Z (2012) Unveiling cryptic species of the bumblebee subgenus *Bombus* s. str. Worldwide with COI barcodes (Hymenoptera: Apidae). Systematics and Biodiversity 10(1): 21–56. https://doi.org/10.1080/14772000.2012.664574
- Williams P, Thorp R, Richardson L, Colla S (2014) Bumble Bees of North America. Princeton University Press (Princeton), 1–208.
- Williams PH, Byvaltsev AM, Cederberg B, Berezin MV, Ødegaard F, Rasmussen C, Richardson LL, Huang J, Sheffield CS, Williams ST (2015) Genes suggest ancestral colour polymorphisms are shared across morphologically cryptic species in Arctic bumblebees. PLoS ONE 10(12): 1–26. https://doi.org/10.1371/journal.pone.0144544
- Wilson JS, Wilson LE, Loftis LD, Griswold T (2010) The montane bee fauna of north central Washington, USA, with floral associations. Western North American Naturalist 70(2): 198–207. https://doi.org/10.3398/064.070.0206
- Winfree R, Bartomeus I, Cariveau DP (2011) Native pollinators in anthropogenic habitats. Annual Review of Ecology, Evolution, and Systematics 42: 1–22. https://doi.org/10.1146/annurev-ecolsys-102710-145042

Wolf AT, Ascher JS (2007) Bees of Wisconsin (Hymenoptera: Apoidea: Anthophila). The Great Lakes Entomologist 41(1 & 2): 129–168.

Zack RS (1984) Catalog of types in the James Entomological Collection. Melanderia 42: 1–41. Zank B, Bagstad KJ, Voigt B, Villa F (2016) Modeling the effects of urban expansion on natural capital stocks and ecosystem service flows: a case study in the Puget Sound, Washington, USA. Landscape and Urban Planning 149: 31–42. https://doi.org/10.1016/j.landurb-plan.2016.01.004

Supplementary material |

Life history data for each species

Authors: Chanda S. Bartholomew, Elizabeth A. Murray, Silas Bossert, Joel Gardner, Chris Looney

Data type: xlsx

Copyright notice: This dataset is made available under the Open Database License (http://opendatacommons.org/licenses/odbl/1.0/). The Open Database License (ODbL) is a license agreement intended to allow users to freely share, modify, and use this Dataset while maintaining this same freedom for others, provided that the original source and author(s) are credited.

Link: https://doi.org/10.3897/jhr.97.129013.suppl1

Supplementary material 2

Species by ecoregion

Authors: Chanda S. Bartholomew, Elizabeth A. Murray, Silas Bossert, Joel Gardner, Chris Looney

Data type: csv

Copyright notice: This dataset is made available under the Open Database License (http://opendatacommons.org/licenses/odbl/1.0/). The Open Database License (ODbL) is a license agreement intended to allow users to freely share, modify, and use this Dataset while maintaining this same freedom for others, provided that the original source and author(s) are credited.

Link: https://doi.org/10.3897/jhr.97.129013.suppl2